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VALUE CREATION FROM A GENDER PERSPECTIVE

-a case study of Caran

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PREFACE

It is established that many people find themselves through their work, and this is even more well-known in the upper level of a company for people working in management positions. Since we, the authors of this thesis, hope to end up at these positions one day, we wanted to investigate the management area more closely. We specifically wanted to focus on value creation within an organization, and study the heart of a company, the employees, and their effect on profitability. Our advisor, Leif Edvinsson, introduced us to the network Women to the Top and their studies on women leaders and profitability, which caught our interest. Marie Trollvik is a part of this network and became our mentor during the writing process. We are thankful for her guidance within the gender area and the contact she established for us with our case company Caran. A great thank is to be given Caran, especially our main contact Agneta Lundén-Hjält, for their time and willingness to share their thoughts and knowledge.

We would like to greatly applaud our advisor professor Leif Edvinsson who has helped us throughout the process of this thesis with literature, network and how to calculate our findings. The most important part Leif played was as a source of inspiration, not just for this thesis but for our future life as business women. He has laid the last and most significant piece in our puzzle of education.

We would also like to give a lot of tanks to our friends and family, especially to the ones who shared their language and economical skills with us.

Pleasant readings,

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SAMMANFATTNING

- Titel:** Värdeskapande från ett genusperspektiv – en fallstudie av Caran
- Seminariedatum:** 2007-06-07
- Ämne/kurs:** FEK 591 Magisteruppsats i företagsekonomi, Strategic Management, 10 poäng
- Författare:** Malin Nilsson Tervahauta, Sara Lundquist
- Handledare:** Leif Edvinsson
- Fem nyckelord:** Intellectuellt kapital, Mätmetoder, Lönsamhet, Kvinnliga ledare, Förädlingsvärde
- Syfte:** Syftet med denna uppsats är att räkna på de finansiella effekterna av kvinnliga ledare i konsultfirman Caran.
- Metod:** Uppsatsen bygger på en fallstudie utifrån en abduktiv infallsvinkel och författarna har valt en multi-strategisk forskningsmetod. Den kvalitativa studien baseras på intervjuer med ledare i det valda fallföretaget och den kvantitativa studien är byggd på interna och externa nyckeltal. Genom att kombinera en kvalitativ och en kvantitativ forskningsmetod kan författarna kalkylera materialet på ett internt och externt sätt och därmed öka trovärdigheten på studien.
- Teoretiskt perspektiv:** Med utgångspunkt från uppsatsens syfte har författarna valt ett teoretiskt ramverk med fokus på tre områden: Intellectuellt kapital, kvinnliga ledare och mätning och värdering av intellectuellt kapital. De första två används för att beskriva det studerade objektets karaktär. Den tredje används för att kalkylera variablerna inom det intellektuella kapitalet.
- Empiri:** Studien är baserad på empiriskt material som består av data från intervjuer med ledare i Caran och siffror från deras årsbokslut och andra rapporter.
- Resultat:** Caran har en stark tro på att kvinnliga ledare kan påverka lönsamheten positivt. Eftersom kvinnliga ledare inte är påtagliga resurser är det väldigt svårt att kalkylera deras exakta värde. Författarna fann att deras ena mätmetod inte kan användas för att kalkylera värdet av kvinnor. Men hjälp av den andra metoden kan författarna påvisa en skillnad mellan kvinnliga och manliga ledare genom ett index som sedan kan jämföras med andra grupper. Men de kan inte bevisa att kvinnor är bättre på att skapa värde i jämförelse med manliga kollegor; siffrorna indikerar att kvinnor skapar värde på grund av att de har lägre lön.

ABSTRACT

- Title:** Value creation from a gender perspective – a case study of Caran
- Seminar date:** 2007-06-07
- Course:** FEK 591, Master thesis in Business Administration, Major in Strategic Management, 10 Swedish Credits (15 ECTS)
- Authors:** Malin Nilsson Tervahauta, Sara Lundquist
- Advisor:** Leif Edvinsson
- Key words:** Intellectual capital, Measurement, Profitability, Women leaders, Value added.
- Purpose:** The aim of this thesis is to calculate the financial effects of women leaders in a large consultant firm, Caran.
- Methodology:** The thesis is built upon a case study with an abductive approach and the authors have chosen a multi-strategy research. The qualitative study is based on interviews with managers in the chosen case company Caran and the quantitative study is built upon internal and external figures. By combining a qualitative study and a quantitative study the authors aim to calculate the findings in both an internal and external way to increase the reliability of the thesis.
- Theoretical perspectives:** Based on the purpose of this thesis the theoretical framework has three main focuses: Intellectual capital, women leaders and how to measure and value the intellectual capital. The first two focuses are used to describe the character of the object being studied. The third is used to calculate variables in the intellectual capital.
- Empirical foundation:** The study is based on the empirical foundation which consists of data from several interviews with managers in Caran and of numbers and figures from their annual report and other reports.
- Conclusions:** Caran has a strong belief that women leaders affect the financial profitability positive. Since women leaders are intangible resources it is very difficult to calculate its exact value. The authors found that one of their measurement methods can't be used to calculate the value of women leaders. The other measurement method can calculate significance between women and men leaders and provides an index to be compared to other groups. But there is no prove that women are better creating value than their men colleagues, the figures indicate that women add more value due to their lower wages.

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- ***“We want leaders dressed in women clothing”***

This is the first sight you meet when you visit the homepage of the consulting company Caran. The organization is active in design and technological development for other companies. Caran is actively searching for more women leaders to join their firm to achieve a better balance between the genders in a men dominated industry.

(www.caran.se, 2007)

1. INTRODUCTION

In this chapter the background and a first introduction to the subject women leaders and the value they are bringing organizations are presented. An approach to the problem is formulated and the purpose of this study is defined.

1.1 BACKGROUND

Today many organizations have moved towards becoming knowledge intensive firms and the human capital is often the only, or at least the larger part, of a company's assets (Alvesson, 2004, The Kingsmill review, 2001). This makes organizations completely dependent on their employees' knowledge and competence. In order to be the successful, the management has to be able to recruit, invest in, develop, and keep their best employees (The Kingsmill review, 2001). Pickett (2005) argues that effective organizations are those who have superior strategies for managing and developing people, with focus on both organizational and individual capability. These organizations have learned to measure people as assets rather than costs and are able to resist the short run pressures that cause chronic under-investment in people. Kiger (2006) argues that creating shareholder value is not about reducing costs but investing in human capital and recruiting the right people. His research shows a positive correlation between human resources and the creation of shareholder wealth.

The new economy, with its focus on human capital, demands a better understanding for an organization's intellectual capital (IC) and the value it creates (Edvinsson, 2005). Concepts such as intangible assets, embedded tacit routines, core competence, knowledge creation, and innovation are taking a central stage when describing an organization's assets that create value over physical and financial resources (Davenport, 1999). Investments in intangibles account for more than 60 percent of the total investment according to research covering 18 countries. The magnitude of investments in intangibles and IC is clear. More difficult to show is how much value is being created through these investments. (Edvinsson, 2005)

IC consists of intangible elements. These elements, such as employees, lie far beyond the traditional accounting system (Edvinsson, 2005). However, most

economic and financial models treat employees, their prime carriers of knowledge, as costs instead of assets (Pulic, 2004). 49 percent of the managers in a study made in the USA and Europe say that they view intangibles and intellectual capital as the most important force for long-term value creation. 48 percent believe that the market rewards firms that invest in intangibles. At the same time 95 percent say that they don't have a robust system for measuring their intellectual capital, a third say that they don't have any at all. (Roos et al, 2005) In the traditional economy, wealth was created by an increase in quantity, therefore the measurement system is built on quantity with indicators as revenue, costs, and profit. The value of knowledge based products or services can not be formed through quantity but is based on the perceptions of customers. The transformation from quantity to value requires new measurement systems. Many methods and approaches have been made during the last years trying to solve this question (Pulic, 2004) but in practice most organizations still rely on models of the traditional economy, which is also true for financial reporting (Ricardis, 2006).

IC is characterized by having many parts, some physical and some not, which is why it is difficult to find a universal measurement method for IC and its different components. A number of IC measurement methods are made and according to Firer and Williams in Kiger (2006) these existing measurement methods provide a measurement system for an organization's intellectual capital. But its measure for its components; structural and human capital is incomplete, since it is very hard to identify and separate them in a completely correct way.

1.2 PROBLEM DISCUSSION

During the last decades a public demand for board diversity has been widespread in Europe. In the Nordic countries a debate has emerged concerning gender diversity and the potential role for politicians to control it. JämO is a Swedish government authority that sees to that woman and men have the same rights regardless gender. They also have the authority to make sure that the rules in the Swedish equity law are followed (www.jamombud.se/omjamo, 2007). An addition to this law has been proposed in Sweden, suggesting forcing organizations to have an equal board representation of each gender. In Norway such a law already exists, requiring all Norwegian firms to have a 40 per cent board representation of each gender. And if an individual company doesn't fill this requirement it can lead to the consequence of deregistration of the firm. But due to the change of the Swedish government in the end of the fall 2006, the proposed Swedish law was withdrawn. (Oxelheim et al, 2006)

When looking at statistics regarding Swedish organizations one quickly discovers that these organizations are far away from equal in a gender aspect. In most organizations the top- management consists mainly of men: 87 percent of all Swedish organizations have boards that are dominated¹ by men, 82 percent of the Swedish management members are men, and in the private sector 98 percent of the directors are men. (SOU 2003:16) At the same time many women are well

¹ That is, more than 60 percent men in the board

educated, have a high performance capability and are willing to have a career. A study made on 65 Swedish women directors showed that 83 percent of the women found men and women just as good at leading organizations (Amnell, 2007). According to Whal et al (2001) women and men produce equal test results on leadership characters and intelligence.

The arguments for greater diversity in organizations are sometimes related to innovation capability, better global understanding, and better understanding of diverse customer needs (Daily & Dalton, 2003). Some argue that board diversity should make sense for the shareholders (www.women2top.net), other emphasize that diversity is a goal in itself (Bilimoria & Huse, 1997). Alvesson & Due Billing (1998) mention the “resource argument” as a reason for gender diversity. Women comprise half of the potential workforce, companies not using this large pool of talents are risking to not being able to compete on a market that demands skilled labour (The Kingsmill review, 2001). If only half of the population’s knowledge, creativity and experience are being acknowledged by a company they are wasting potential resources (www.women2top.net, 2007).

There are several studies made regarding the relation between the division of gender in organizations and profitability. The outcomes of the studies made show different results. (Oxelheim et al, 2006). A study made by Catalyst (2004) shows that organizations with a high percentage of women leaders have better financial results than the organizations with mostly men leaders, both when it comes to return on equity, and total return to shareholders. Another study made by Shrader et al (1997) also shows a positive correlation between women managers and financial performance. But at the same time the study shows a negative relationship between the percentage of women board members and accounting performance. In 2006 a study on Scandinavia’s 500 largest companies was made by the Nordic Innovation Centre. The study found that during 2005, there was no significant correlation between board diversity, including gender, and profitability². Nor did the organizations with a high level of diversity show a lower firm performance. This makes the authors of this thesis wonder; do women leaders create an increased profit or not?

A large Swedish consultant firm, Caran writes on their homepage; “*We want leaders dressed in women clothing*” (www.caran.se, 2007). That strongly indicates a belief that more women leaders will benefit the organization. But as argued in the background, it is difficult to show the value added by intangible resources (Edvinsson, 2005) such as employees and women leaders. Since previous research show different outcomes on the correlation between the percentage of women leaders and profitability the authors ask themselves if women leaders actually create financial value in Caran. The authors wonder if it is possible to show the financial effect of women leaders using different IC calculation methods in the chosen case company Caran.

² Stock value and financial ratios such as ROA

1.3 PURPOSE

Taking the discussion above as a starting point, the purpose of this thesis is formulated:

The aim of this thesis is to calculate the financial effects of women leaders in a large consultant firm, Caran.

In order to fulfil the purpose three questions are to be answered:

- *Are the women leaders in Caran creating an increased profitability?*
- *If that is the case: is it possible to calculate that value?*
- *If that is possible, how can it be made?*

1.4 PREVIOUS RESEARCH

Gender is a subject that is frequently studied. Many studies have been made covering various aspects of the gender issue and with different approaches to the subject. Since it is a subjective area it is difficult to find general theories describing the situation. Instead a great number of studies are made indicating different outcomes. Clear though is the fact that women are discriminated in the work-life. As argued above only a few numbers of women have managed to become top-leaders within Swedish organizations (SOU 2003:16). At the same time they are well educated and willing to have a career. Women also tend to have lower salaries and wages than men (Padavic & Reskin, 2002). Open for debate is the question if women leaders create financial value in organizations. Previous studies show different outcomes, some of them are presented below.

	Main Focus	Theory	Conclusions
Shrader et al, 1997	Management & Board diversity	Financial ratios	Negative relation between the percentage of women board members and performance.
Shrader et al, 1997	Management & Board diversity	Financial ratios	Positive relation between the percentage of women managers and performance.
The Kingsmill Review, 2001	Women leaders	Profitability	Great savings were made when starting to promote women into leaders.
Catalyst, 2004	Women leaders	Financial ratios	Positive correlation between shareholder value, ROE and women leaders.
Oxelheim et al, 2006	Corporate board diversity	Diversity theories & financial ratios	No correlation between the percentage of women board members and profitability.
Downey et al, 2006	Gender	Transformational leadership	Women often adapt the transformational leadership, which affects followers. This can lead to increased efficiency.

Women to the top, 2007	Women leaders	Management & diversity theories	Women leaders create financial profit in organizations.
Library House, 2007	Women leaders	Profitability	Women have difficulties reaching the top in organizations.

Previous research and their outcome. Table 1.1

1.5 LIMITATIONS

In this thesis the authors have chosen to study only the value that women leaders bring to the organization Caran. The authors are aware that other equality aspects such as cultural background and age also might have an effect on the profitability in Caran. The authors have also limited the study to only focus on Caran's top-management. Due to various limitations the authors had to make sure that the subject area was not extended beyond a reasonable size, which is why only one aspect was chosen: Women leaders in Caran.

1.6 DISPOSITION

CHAPTER 1 Introduction

In this chapter the authors give an introduction of the subject women leaders and profitability. A problem discussion was is and the purpose of this study is defined.

CHAPTER 2 Method

Here the method of how this study was created and made is explained and motivated. The chapter explains how the topic of this thesis was chosen, developed and problems along the way.

CHAPTER 3 Theoretical framework

The theories that lie ground for the analysis are presented. The chapter starts by describing intellectual capital and its different components. The concept women leaders are then discussed and finally theories of how to measure intellectual capital and its components are explained.

CHAPTER 4 Empirical data

In this chapter an introduction to the case organization Caran is given and the empirical data is presented.

CHAPTER 5 Analyse

In this section of the thesis the authors apply the chosen theories on the empirical material from Caran to make a complete analyse of the subject.

CHAPTER 6 Conclusions

Finally the conclusions of this study and its calculations are presented and the true story about Caran and their women leaders is told. Suggestions for further research areas are given.

2. METHOD

In this chapter the authors present the different perspectives and methods used in this thesis. Descriptions of the different decisions made during the process that may have had an effect on the results are presented.

2.1 CHOICE OF SUBJECT

The idea of this thesis was created after a short presentation of the subject by Leif Edvinsson. He introduced the authors to a project called “Women to the top” led by Marie Trollvik. This project and its outcome, that woman leaders create financial profitability, were new for the authors and immediately caught their interest. As the authors did not know much about the subject they initially tried to get a deeper understanding about it by gathering information, articles and literature about gender equality, women leaders, intellectual capital, measurement theories, and profitability. From the knowledge given by this information the first step in creating the purpose of this study was made.

From the start the authors had contact with Marie Trollvik over email and phone. Since the initial idea of this thesis came from Trollvik she helped the authors to find information about gender studies and gave feedback on the authors’ thoughts, ideas and formulation of purpose. Trollvik also helped the authors to find a suitable case organization, Caran, and introduced them to their human resource manager, Agneta Lundén-Hjält.

Since Trollvik is an expert on the subject gender but not business and economics, the authors also contacted a Professor of intellectual capital, Göran Roos, to get a deeper understanding about calculating intellectual capital and measuring intangible resources. He pointed out the importance of defining a measurement system and its components.

The authors early came to realize that studying the link between women leaders and profitability is a highly topical subject. There are several studies made investigating the correlation between women leaders and profitability, with different outcomes. The studies found are made on a great number of organizations but do not say anything about each and every organization, which is

why the authors wanted to study the effect women leaders have on one particular organization, Caran.

2.1.1 Authors' comments on the topic

As the authors were given a topic and a problem area they did not have to spend a lot of time at formulating and defining the purpose of this thesis. During this process the authors found the contact and feedback from Trollvik as very positive.

The authors early discovered that the subject chosen affects many people, bringing out emotions and questions. During the process the authors met a great deal of scepticism against the results from earlier studies, saying that women leaders create more value in organizations. Therefore it has been of great importance that the authors have focused on being as neutral as possible to the subject.

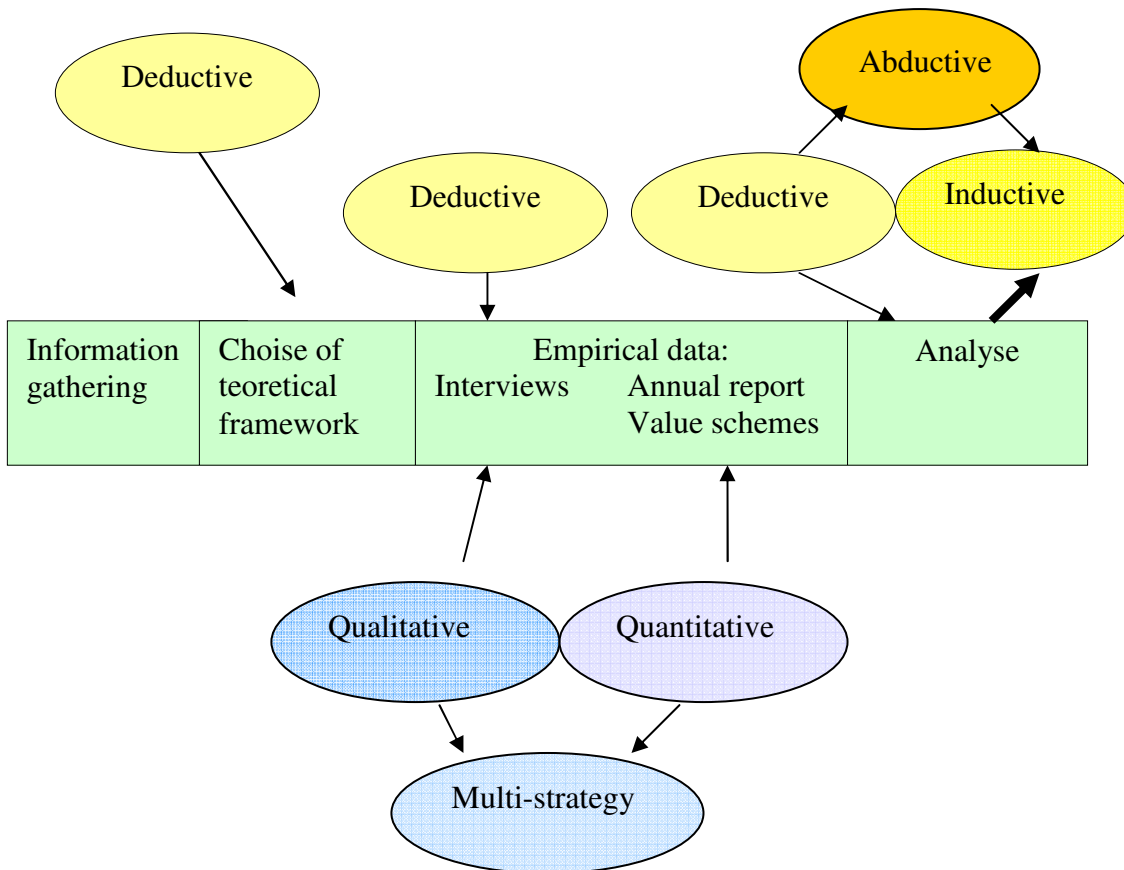
The author's greatest challenge when writing this thesis was to find a way to calculate intangible resources, mainly because calculating IC is a rather new perspective and not many calculations have been made. As the authors had never done this before a lot of effort was made on finding information, reading literature and using contacts in order to find a way of calculating how women leaders affect profitability. The fact that this is an unexplored area made the authors work very interesting, but at the same time they struggled during the whole process with finding accurate models and theories to use.

2.1.2 Choice of words

The authors have experienced the formulation to be of great matter when writing about gender. A small change of words can be of great meaning. The authors have chosen to name people in leading positions "women leaders" or "men leaders". The authors are aware that the reader might find "female leaders" or "male leaders" to be more accurate, but in order to give a neutral approach to the subject, the earlier formulation has been chosen. This is mainly due to recommendations from Trollvik. When using words as female and male it can, according to her, be interpreted as the difference between genders due to culture, instead of biological differences.

2.2 THE METHODOICAL APPROACH

An overview of the methodical approach is presented below, highlighting the relation between the different progress stages of this thesis and the approach used.



Overview of the methodical approach. Picture 2.1

2.2.1 An abductive approach

There are two basic ways of approaching a social study research, inductive and deductive. With a deductive approach the aim is to start from a theory and create hypotheses that either confirm or reject the theory after an analysis of data. The inductive approach is used when the researcher starts from an empty paper and tries to create a new theory with the results from his/her study (Bryman & Bell, 2003).

Since the researcher has chosen a perspective from the beginning when using a deductive approach he/she risks finding only what he/she thought was interesting to start with (Jacobsen, 2002). The researcher risks missing out on important information, something that the authors of this thesis wanted to avoid. At the same time they found difficulties using an inductive approach since the interview material were created with pre-existing theories and concepts as a base. When creating the base for analyse the authors had to use existing theories as much as possible, and thereby had a deductive approach. At the end of the analysis the authors found no theories to use and therefore used an inductive approach in order to try to find a way to calculate the financial effect of Caran's women leaders. Since both approaches were used during the process of this thesis, the relation between theory and empirical results can best be described as an abductive

reasoning. An abductive approach starts from empirical data but also welcomes theoretical perceptions (Alvesson & Sköldberg, 1994).

2.2.2 Multi-strategy research

The earlier studies found on the subject are quantitative studies and show different outcomes; therefore the authors have chosen to conduct a multi-strategy research as they have combined a qualitative and a quantitative approach. Since the authors did not know which variables to use in the coming calculations they discovered new focus areas as the work proceeded. A qualitative research method allows the researcher to change the nature of the interventions (Cassel & Symon, 1994). It also gives the researchers the opportunity to change theory focus and do follow up interviews if needed. This was made several times in the working process of this thesis.

Trough a quantitative research the authors were given the opportunity to study the phenomena in an objective way. In a qualitative research the focus is on the collecting and interpretation of data rather than quantification (Bryman & Bell, 2003). By also using a quantitative approach the authors could standardize the information gathered from the empirical data which can make it easier to analyse and give the study external validity. This also makes it easier to analyse the variations and connections between different aspects of the area being studied. Since the authors wanted to eliminate the risk of giving the study a superficial stamp, which is often the case in quantitative studies, a multi-strategy seemed to be the best alternative. (Jacobsen, 2002) The quantitative approach was used when calculating the value women leaders bring to the organization. This was done in two different ways; by using the annual report as a base and by letting the respondents estimate the value women can bring by doing a value scheme over Caran.

Some argue that a multi-strategy is incorrect since the two approaches, qualitative and quantitative, are two separate research-methods that view problems differently. An epistemological research is associated with positivism, arguing that there is one scientific truth. These kinds of studies often have a quantitative approach. An ontological research considers the problem to be social constructed, based on perceptions of the social actors. This consideration is associated with a qualitative approach. (Bryman & Bell, 2003) The authors of this thesis see the phenomena being studied in the context it is in and have therefore taken on an ontological consideration. At the same time as some methodical researchers find the multi-strategy to be incorrect other researchers find a combination of the quantitative and qualitative approach to be the ideal approach to a study. They argue that the approaches are not supposed to be seen as antithesis to each other, but as complements. (Jacobsen, 2002) The authors of this thesis believe that by combining the two approaches the authors can strength the validity of this research.

2.2.3 Case study of an organization

The authors have chosen to conduct this thesis as a case study based on interviews and figures from the organization Caran. The organization was chosen after recommendations from Marie Trollvik and due to their open approach towards more women leaders; they have shown an interest in the topic and this study. In all case studies the objects being studied are limited in time and space (Jacobsen, 2002). The phenomenon is studied in a special context, profitability and women who are executers. Case studies aim to investigate several variables before the general validity of the study.

The authors have used a deep study instead of a wide one, the research is based on our respondents' answers and Caran's financial situation and the study is not to be generalized. The study has no objective ground (Bryman & Bell, 2003) but is mostly based on interpretations (Jacobsen, 2002). The authors strive to give a deeper understanding for a rather unexplored area; women leaders and profitability.

2.3 PRIMARY AND SECONDARY DATA

The primary data in this thesis were given during the interviews with the respondents in Caran. Besides this information the authors also used secondary data in form of literature on the subject, information from Caran's homepage and Caran's annual report. The authors have used Caran's new recruitment campaign in order to evaluate the value of women leaders. Information about the campaign can be found on Caran's homepage. By getting information from different sources the authors were able to find more nuances on the subject, women leaders and profitability and strengthen the validity of this research.

2.4 INTERVIEWS

To be able to find the variables needed to calculate how much women leader's effect profitability, the authors chose to meet and interview three leaders within Caran, the human resource manager, the marketing director and one division manager. Initially the authors were supposed to interview the financial manager as well but he cancelled at the last minute, however the authors asked him some questions over email and phone instead. The interviews were held with one person at the time and took about one hour each. Initially the authors had contact over email, presenting the work and some of the interview questions. This was done to introduce the respondents to the subject and to try to keep the interviews as short as possible, respecting the respondents' time pressure (Bryman & Bell, 2003).

The interviews were held at Caran's main office in Gothenburg. The main reason for this was to make it as easy as possible for the respondents. The authors also found it interesting to see the environment in where the respondents are working. According to Jacobsen (2002) the workplace is a natural environment and the context effect can affect the interviews. The authors found this positive since they wanted the answers to be effected by the respondent's working situation. In order

to make the respondents feel comfortable to answer the questions without worrying about their colleagues, the interviews were held behind closed doors. Since the authors were able to have frequent contact with the respondents after the interviews they didn't consider it necessary to record the interviews.

The interviews followed an interview guide (Appendix II) with questions based from this thesis's theory frame and purpose. The interview guide was divided into two sections, questions and a value scheme to be valuated. The authors used partly structured interviews. This doesn't have to lead to closed interviews, but can rather be seen as support and guidance during the interviews (Jacobsen, 2002). During the interviews the respondents were given the opportunity to develop their answers and the authors had the possibility to follow up interesting answers. The interviews can therefore be described as semi-structured (Bryman & Bell, 2003). The second part of the interview was to do three value schemes, valuating different resources within Caran. Since this required more time than expected, the respondents valuated the value scheme after the interviews and sent back the answers by mail a couple of days later. When starting with the analysis the authors also realized some areas where more information was needed and did a follow-up interview with the human resource managers over email.

The purpose of this study was presented before and during the interviews. Since the subject being studied is rather complex the authors considered it necessary in order to get useful answers. The authors also presented how they were planning to calculate the value of their women leaders to get as accurate information as possible. Gender can be viewed by many as a sensitive subject, therefore it was important to be open and let the respondents realize that this study is not a gender study, but a study focusing on the financial situation in Caran.

The choice of method is affected by the object that is being investigated (Rienecker & Jörgensen, 2000). Through a qualitative research the authors were given the opportunity to study how the interviewed persons respond to the chosen topic without great limitation of the questions being asked, welcoming answers beyond expectations (Jacobsen, 2002). The aim of the interviews was to hear different managers' point of view on women leaders and profitability. If only using a quantitative method the authors would have been forced to study the respondents with greater distance and would not have been able to catch the different nuances in the answers given. (Jacobsen, 2002) Worth mentioning is that a qualitative method is time consuming and a multi strategy method is even more time consuming, it takes time to prepare, execute and interpret the studies made. The authors had to choose which variables to include in the study and how to perform the empirical research to give the study reliability. This was something the authors experienced as they chose only to interview three persons face-to-face and one over the telephone. In order to get as deep answers as possible the authors had frequent contact through telephone and email after the interviews, giving the respondents an opportunity to reflect over the subject. The authors also had one follow-up interview with one of the respondents through mail. When only interviewing a few people the ability to generalise becomes difficult. Instead it gives the possibility to go deeper in to the subject analysing more variables. (Jacobsen, 2002) The authors are not trying to draw any generalizing conclusions with this thesis. Therefore this thesis' alignment is based on interpretation and the

authors take under consideration that the social context is under constant reconstruction, effected and interpreted by the individuals in it. (Bryman & Bell 2003)

Since one part of this study is built upon our empirical data collected during interviews it is important to have a critical view towards the answers. The authors have tried to avoid the “interview effect”, which is avoiding the respondents to be affected by the interviewers (Jacobsen, 2002). The authors are aware that the respondents may have been affected by the author’s presence, that they might have interpreted the questions the wrong way or felt controlled by them. There is also a risk that the respondents felt uncomfortable in the situation which could affect the interviews in a negative way. Considering the risks mentioned above there is a risk that the answers given during the interviews don’t reflect the true conditions in the organization. In order to make the respondents as relaxed as possible the authors had prepared by reading about the organization and started with asking questions about the organization and their work in general. The authors were aware of the risk that the respondents, as managers, might have tried to glorify themselves and/or the organization. The interviews were held within a time limit, which lead to the authors not being able to ask too many questions. Therefore they might have missed out on interesting aspects of the area being studied. The respondents could also have felt that there wasn’t enough time for them to give as deep answers as they could have. But the authors felt that the interviews gave a deep understanding toward the respondent’s view of the subject and. The authors therefore consider the empirical data to have reliability.

Equality is a sensitive subject. Many companies have bold equality plans and equality is seen as something already achieved. Daily decisions though are not following these plans (www.women2top.net, 2007, Final report). This could also be the case in Caran. The respondents’ beliefs about their women leaders and the effect they have on Caran’s profitability might not reflect the reality. Therefore the authors have focused on interpret the respondent’s answers as neutral as possible.

One of the author’s greatest concerns writing this essay has been finding a day for interviews with Caran. They have been very helpful and accommodating but they have also been under great time pressure, especially the contact person Agneta Lundén-Hjält. Therefore the interviews were held late in the writing process. The second part of our interview, the value schemes was supposed to be sent back to the authors within two days but the authors got them all two days before deadline. Even more difficult was to get answers on the questions asked after the interviews being held. This could have had a negative effect on the author’s ability to focus on the analysis of data. Bu since the authors got the answers late they can give the study more reliability since the respondents have gotten time to really consider which parametric in the value scheme they view as important.

2.4.1. Selection process of respondents

The selection of respondents is reflected by the ambiguous nature of measuring intellectual capital. The authors wanted to interview managers from different areas in Caran in order to find different views on the subject. The authors chose to

interview only managers because they believe them to have a great understanding for the organization, their work and for management issues. The authors also found it important that the respondents had an insight in the subject women leaders and profitability so that the reliability holds a high level.

The author's main contact in Caran and one of the respondents is Caran's human resource manager, Agneta Lundén-Hjält. She has worked in Caran since 2001 and has a great interest in the topic women leaders and profitability. Lunden-Hjält arranged the other respondents considering the authors request for manager from different areas. Besides Lunden-Hjält the authors also interviewed Charlotte Uttersson, division manager and Lennart Andersson, marketing director. A phone interview was held with the financial manager Thomas Andréén.

There are no guarantees that the respondents are representing the true situation in Caran. They might be affected by the fact that Caran is actively searching for more women leaders. The authors have worked actively with trying to interpret their answers as correct as possible to give the study high reliability.

2.5 THE THEORETICAL STUDY

The theoretical framework was created using inspiration from literature, articles and the Internet. The authors mainly found the articles used at ELIN@Lund and have tried to use as topical articles as possible. Most literature used is recommended by the author's advisor Edvinsson or by their mentor Trollvik. Some of the literature used has been referenced in the recommended literature. Other literature has been used in the education at the School of Economics and Management, Lund. Since the authors did not know much about the subject to start with they have tried to use well referenced articles and writers and follow recommendations given.

Initially the authors mainly used gender theories, recommended from Trollvik. This was mainly done for the author's background information, not for answering the purpose of this thesis.

Based on the purpose of this thesis the theoretical framework has three main focuses; intellectual capital, women leaders and how to measure and value IC. The aim of the chosen theories is to support the problem discussions and the purpose of this thesis without losing the flexibility in designing the research (Rienecker & Jörgensen, 2000). The two first focuses, intellectual capital and women leaders, are used to describe the character of the object studied. The third focus, measuring and valuating IC, is used to create a greater understanding of how to calculate variables in the intellectual capital.

3. THEORETICAL FRAMEWORK

In this chapter three theories used in this thesis are presented starting with a motivation to the chosen theories. The theories are relevant in order to get a deeper understanding about women leaders and the value they bring organizations, and to support the analysis that follows.

3.1 INTRODUCTION

The three theories presented in this chapter are intellectual capital, women leaders, and measurement of the intellectual capital including market capitalization method, IC-index, and VAIC.

The theories about intellectual capital describe the nature of the chosen subject and the difficulties in measuring IC. Within the area of IC, Professor Leif Edvinsson is one of the leading experts and a great number of the theories used are either written by him or have his work as the main reference. The fact that Edvinsson is also the author's advisor is risking the study to be reflected by his personal opinions. At the same time the great amount of researchers referring to Edvinsson's work shows that he is an acknowledged and independent researcher.

It is difficult to find acknowledge theories about women leaders. The literature mostly presents a great number of studies with various outcomes or different point of views on the subject. Through the chosen theories and studies about women leaders presented in this chapter, one gets an understanding about the conditions for women leaders in Swedish organizations and thereby gets a better understanding of their effect on profitability. They also aim to help the authors to analyze the empirical data in chapter five.

Measurement theories were chosen to understand the nature of measurement. Through the different IC measurement methods one gets guidelines in how to calculate the financial effects of women top-leaders. When choosing theories for measuring intellectual capital the authors had several methods to choose from but no universally acknowledged theory. The chosen methods found concern how to measure the whole intellectual capital and not parts within the IC. Pike & Roos (2004) analyse a number of measurement systems and their conclusion is that none of the methods are fully compliant, yet some of the systems provide useful

guidelines for managers. The authors were well aware of these conditions when starting with this thesis and knew that there was a risk for inaccurate calculations, yet the overall belief was that it is possible to calculate, or at least estimate, IC and its components. The authors have chosen to use three different measurement methods as base for their coming calculations. The main reason for this choice was the close relevance of the methods and the fact that they wanted to analyze Caran with both internal and external measurement systems.

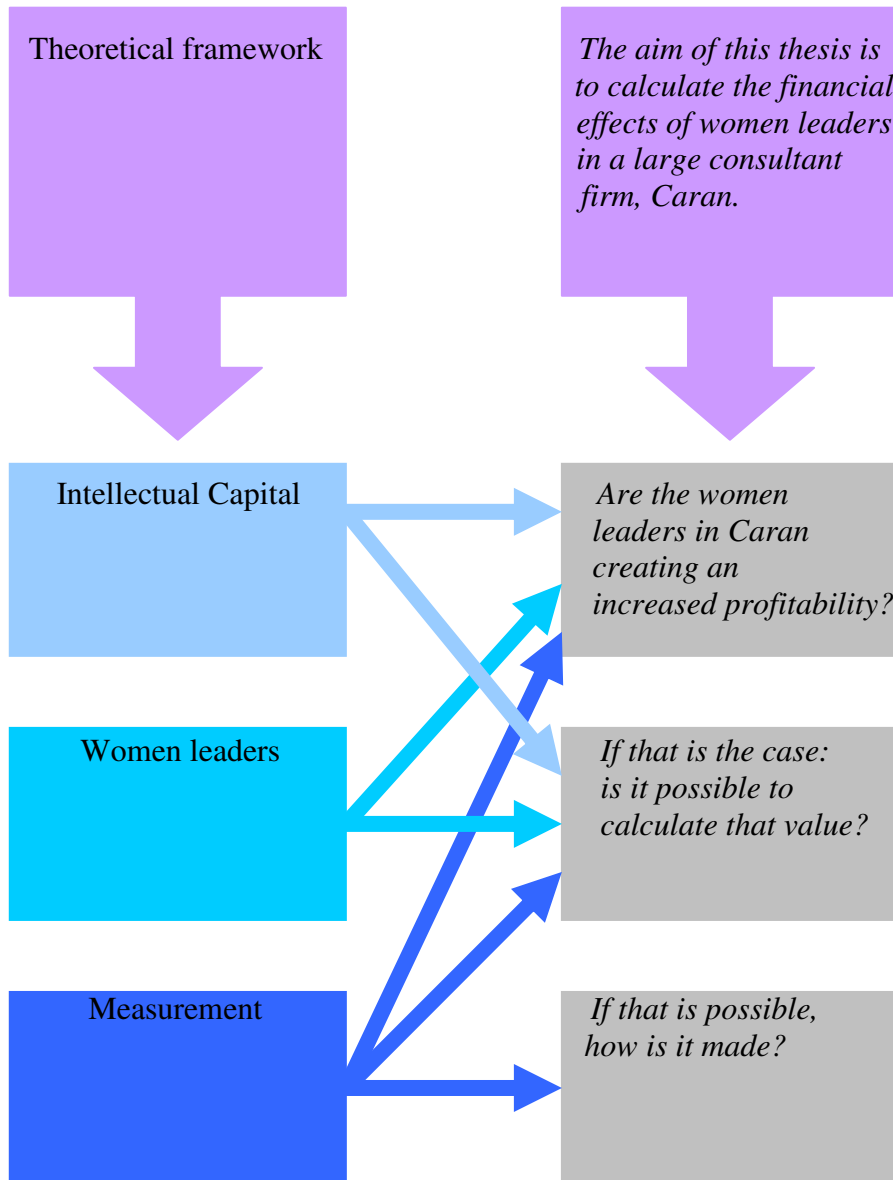
The chosen method used for calculating the value of Caran's intellectual capital, market capitalization methods, follows Edvinsson's IC value scheme (Pike & Roos, 2004, Edvinsson & Malone, 1997). It seems to be a conflict regarding the relevance of this theory which affects the reliability of our measurements but the authors believe it to give a rather close estimation of the value of Caran's IC.

In order to be able to measure the internal way and the different variables within the intellectual capital an IC-index created by Roos et al (1997) was used. It shares many similarities with the method called the Skandia Navigator created by Edvinsson and Malone, 1997 (Pike & Roos, 2004). These kinds of measurement methods are time consuming and require a lot of effort for the personnel in the organization being measured. It is also beneficial if a number of people from the personnel sit down and decide the metrics together. Even though this was not possible in this study, due to time limitation, the authors found this method useful when measuring the value of women leaders in Caran.

Pike's (2004) measurement method, the VAIC model, is an external measurement system, and the authors third chose of method. The method is based on Caran's annual report (Appendix I), which is why the authors could eliminate the respondent's personal opinions and believes as much as possible.

3.1.1 Overview

An overview of this thesis theoretical framework is presented below, highlighting how the theories will help the authors to fulfil the purpose of this thesis.



Overview of the theoretical framework. Picture 3.1

3.2 INTELLECTUAL CAPITAL

“Intellectual capital has been considered by many, defined by some, understood by a select few and formally valued by practically no one.”

(Swart, 2006: 136 referring to: Brontis, 1998)

Most literature on intellectual capital (IC) is related to the value and intangible nature of IC as a resource. Several definitions of IC have been presented; the difference between the definitions lies in the level of analysis applied. (Swart, 2006)

Value creation from a gender perspective

Many authors view IC purely on an individual level referring to knowledge and skills that individuals have (Swart, 2006). Ulrich (1998) argues that IC lies within the employees that are committed to business goals and thereby equals IC with competence multiplied with commitment. Other authors view IC on a collective level, some defining IC as an organization-wide knowledge resource that in combination are constitutive for capabilities (Swart, 2006). Stewart (1997) describes IC as the sum of an organization's patents, production methods, employee competence, technology, information about customers and suppliers, and experiences.

Different definitions of IC differ in their temporal approach to IC. Some argue that IC is something that can create value in the future. Other argue that IC is central to firm performance because of its value in it self. (Swart, 2006) According to Swart (2006), Edvinsson (2002) takes the first stand when he argues that IC concerns an organization's future earning capabilities that have not yet been accepted to have real value on the traditional balance sheet. Jacobsen et al (2005) agrees with Edvinsson (2002) and defines IC as:

“All factors critical to an organization's future success that are not shown in the traditional balance sheet.”

(Jacobsen et al, 2005:571)

Research that views IC as having future learning potential sees IC as knowledge skills and abilities (Swart, 2006). Edvinsson and Malone's (1997) define of IC as:

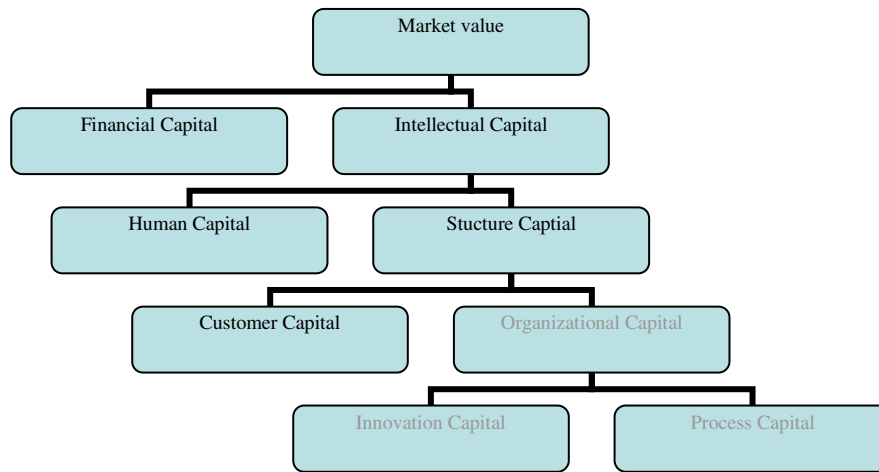
“The possession of the knowledge, applied experience, organizational technology, costumer relationship, and professional skills that provide a company with a competitive edge in the market. “

(Edvinsson & Malone, 1997:44)

When IC is described as assessments of the company's future prospects a longitude perspective is required in order to understand IC. This perspective moves away from the traditional time and costs elements in a balance sheet and focuses on lateral dimensions and the future. In practice IC can be seen as the difference between an organization's book value and the market price of the organization's shares, earlier called goodwill. The stock value includes the value investors find in the intellectual capital (Edvinsson & Grafstöm, 1998).

An organization's intellectual capital can be considered more valuable than the tangible assets. An organization's intangible assets can increase when being shared, in contrast to physical assets. It also has the ability to create great value since even failure makes it grow. (McDougall & Hurst, 2005)

When working for Skandia, in the beginning of 1990, Edvinsson became the world's first Director of Intellectual Capital. At that time Edvinsson created an IC value scheme describing an organization's intellectual capital. This can be used describing and visualizing different relations between the different parts within IC. (Edvinsson & Malone, 1997) As seen in the picture below IC consist of human and structure capital.



Intellectual capital. Picture 3.2 (Edvinsson & Grafström, 1998)

3.2.1 Human capital

“The heart, intelligence, and the soul of the organization”

(Edvinsson & Malone, 1997)

Not only are there a number of definitions and points of views on intellectual capital, but also of its components, and perhaps in particular on the intangible human capital. Often human capital is seen on an individual level (Swart, 2006) and is often described as the knowledge, innovation, ability and skills of the employees in organizations (Edvinsson, 2002). Though there are some authors that describe human capital on an organizational level. Chillemi and Gui (2001) argue that human capital is a non-material asset embodied in a team. They argue that some of the skills and knowledge can be formed only in an organizational context.

As human capital lies within the employees it can't be owned. It leaves the company at the same time as the personnel leave the building and is therefore a fragile asset for an organization. It brings out many questions such as how to work within an organization in order to get the best return out of the human capital and how human capital can be measured and valued. (Edvinsson & Malone, 1997) By using the employee's competence, experience and creativity the organization gets access to the knowledge needed to develop the human capital in the company. (Blomgren & Kuikka, 1998)

According to Jacobsen et al (2005) human capital can be divided into two groups; the management and the employees. This is due to the difference in roles between the two groups and to the importance of management for a company's success. The management considers factors as leadership quality, communication skills, strategic skills etc.

Value creation from a gender perspective

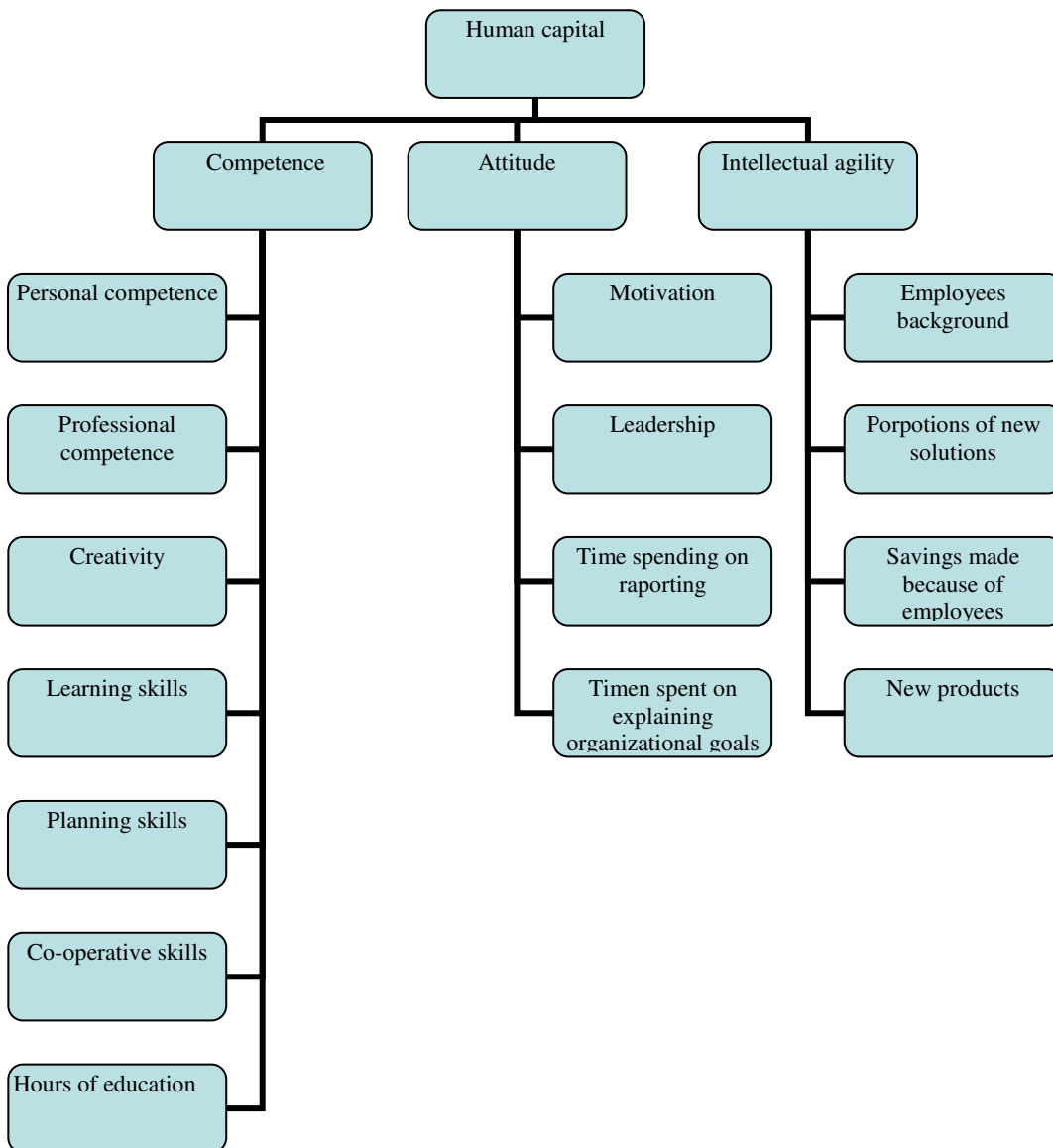
There is an ongoing debate whether or not an organization can present human capital as it belongs to the organization. Bern (2002) argues that since the competence is inside the employees, it can't be presented like an asset, but still the company can affect the human capital by investing in individuals and tools to get to get the maximum outcome from the employees. Investing in relationship, values and image can become significant according to Bern (2002). Sveiby (1995) means that human capital should be included in the accounts since an organization can't exist without the individuals that are a part of it.

According to Roos et al (1997) the human capital can be divided into three main parts: competence, attitude and intellectual agility.

- *Competence.* As we have shown, the human capital partly consists of the employee's competence. Competence is not to be mistaken for knowledge since competence, in contrast to knowledge, aims for actually being able to do something, not just knowing what needs to be done. Competence can rather be seen as knowledge and skills working together. (Roos et al, 1997) When measuring competence, factors such as personal competence, professional competence, creativity, learning skills, planning skills, co-operative skills, and hours of education can be used (Thorbjornsen & Mouritsen, 2003, Roos et al, 1997).
- *Attitude.* According to Roos et al (1997) the attitude can be seen as the employee's willingness to use the competence and knowledge in the best way to reach the company's goals. It is the management's task to make sure that the organizational goals coincide with the individual ones so that the employee becomes willing to do the best for the company. Three factors primarily effect the attitude; motivation, behaviour, and conduct. When measuring attitude you can measure indicators like motivation, leadership, time spent on reporting, and time that the management spends on explaining the organizations goals and strategy to their employees. (Roos et al, 1997)
- *Intellectual agility.* The last component in human capital, according to Roos et al (1997), is intellectual agility which is the organization's ability to innovate and come up with new process solutions or adjustments. A company's ability to innovate is of great significance when it is trying to gain sustainable comparative advantages. The intellectual agility is not only about inventing new products or solutions, but it can also be about finding new markets and test possibilities in a different context than before. This results in a need to be focused on the market and changes in it and nearby industry areas. The last component in intellectual agility is the way to transform an idea to a real thing. The indicators used to measure intellectual agility are diversity when it comes to an employee's background, proportion of new solution, savings made because of employees, and new products. (Roos et al, 1997)

The discussion above and the different indicators to be measured within the human capital are summarized in the value scheme below:

Value creation from a gender perspective



Human capital Picture 3.3 (Adapted from Roos et al, 1997)

3.2.2 Structural capital

In opposite to human capital, structural capital is left at the enterprise when the employees leave and is therefore to be seen as owned by the organization (Edvinsson & Malone, 1997).

According to Edvinsson and Malone (1997) structural capital consists of the organization's hardware, software databases, organizational structure, patents, trademarks and everything else of an organizations capability that supports their employees' productivity. Stewart (1999) describes it as information systems, laboratories, competitive intelligence, and market intelligence. He argues that it is not hard to manage the structural capital but organizations still have a lot to learn about the structural capital and how to value it.

The structural capital has two main purposes to fulfil. On one hand it contains storage of knowledge so that the knowledge can be transferred to others, and on the other hand it creates organizational routines so that the information is communicated better within the organization. (Stewart, 1999) The structural capital also has a multiplier effect with the possibility to improve human capital and thereby increase the intellectual capital. It seems to be a “double- arrow dynamic” in the relationship between human and structural capital. Human capital builds structural capital and a strong structural capital has the ability to improve human capital. (Edvinsson & Malone, 1997)

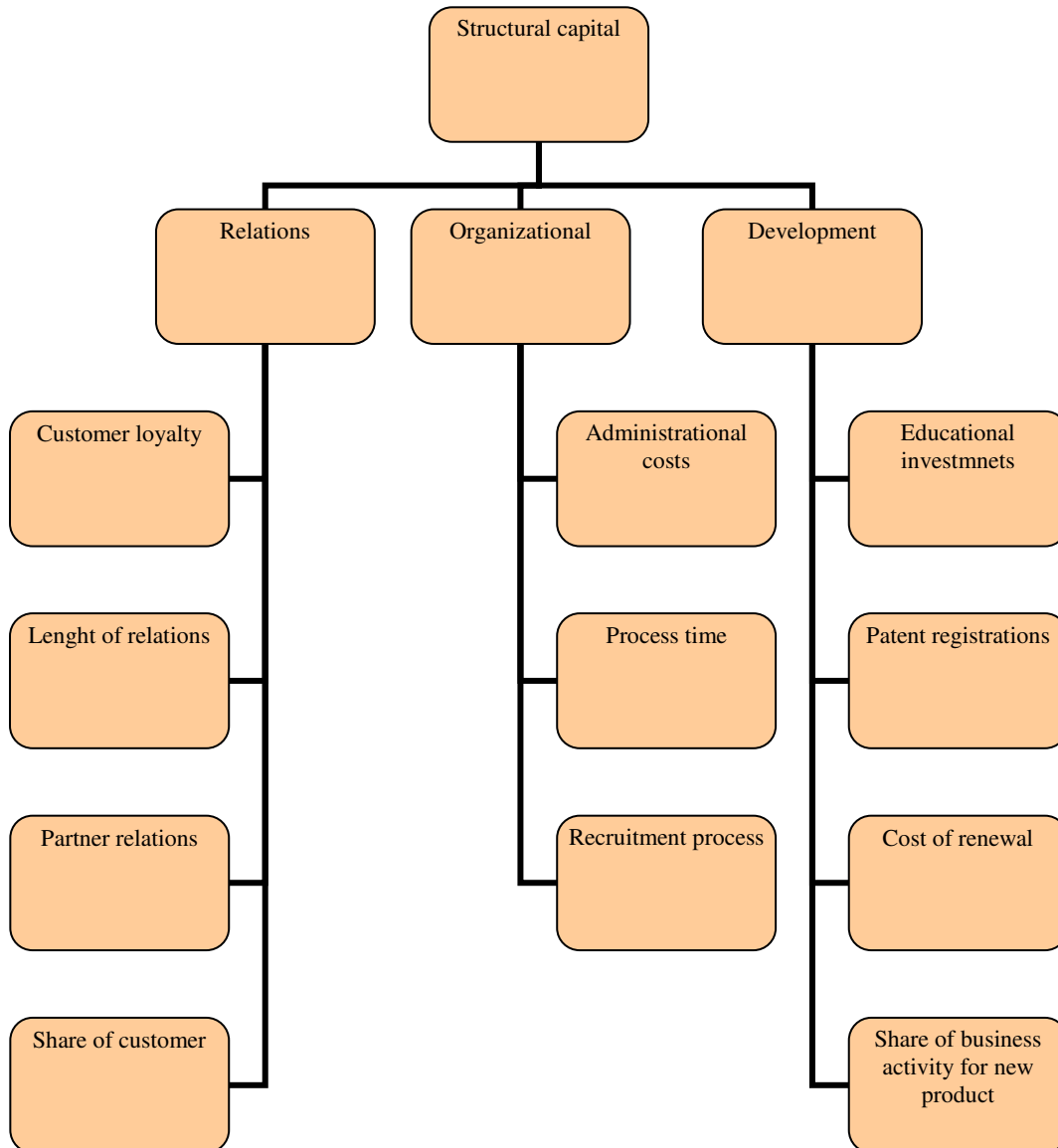
In order to create more value by owning the intellectual capital, and thereby ensuring that it stays within the company, human capital should be transferred into structural capital (Edvinsson & Malone, 1997). For example; parts of the innovations created by the employees can be patented and thereby owned by the organization (Alvesson, 2004) and competence can be structured in databases and other tools, for instance manuals for it to be used by everyone within the company (Stewart, 1999).

Roos et al (1997) and Edvinsson & Malone (1997) divide the structural capital differently. We have chosen to divide structure capital according to Roos et al's (1997) model, letting it consist of three different main components that can be objects for measurement: relations with stakeholders, organizational capital and development.

- *Relations with stakeholders.* Relations with stakeholders are very significant for the company since it concerns all the relations with shareholders, customers, suppliers, alliance partners, and other stakeholders that can be important when a company is trying to reach competitive advantages. These relations can be costly for the company to retain, and the capital investment in relationships doesn't always reflect the annual reports. When measuring the relations with stakeholders, indicators such as customer loyalty, length of relations, partner relations, and share of customer should be used. (Roos et al, 1997)
- *Organizational capital.* This part of the structural capital concerns the organization's internal efficiency. This category includes all the physical and non-physical manifestations of the IC related to the internal structure or the everyday operations. The aspects of the organizational capital are infrastructure, processes and culture. Indicators to be used when measuring organizational capital are recruitment process, process time, and administrative costs. (Roos et al, 1997)
- *Development.* In this category we find development measures that can generate future value. For instance education for the employees costs money and hopefully the education will create more value for the company in the future. In the present it is just shown in the accounting statements as an expense. Indicators being use to valuate development are educational investments, patent registration costs, costs of renewal, and share of business activity that can be derived to new products. (Roos et al, 1997)

Value creation from a gender perspective

The discussion above is summarized in a similar value scheme to the human capital, showing what indicators that can be valued when measuring structural capital.



Structural capital. Picture 3.4 (Adapted from Roos et al, 1997)

3.3 WOMEN LEADERS

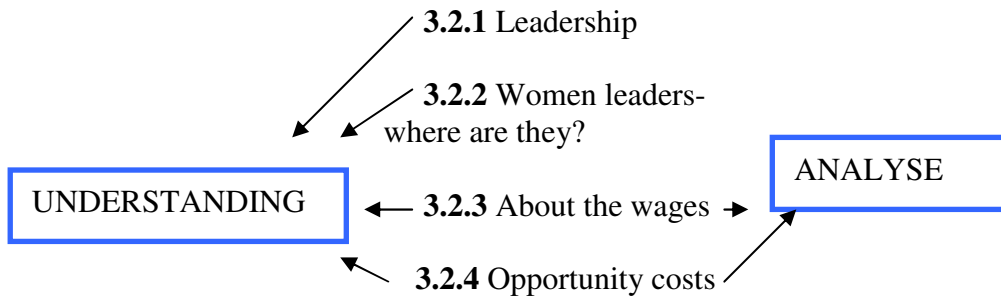
“It is a problem that you still have to argue about why there is a need for women leaders but there is never a need for the opposite, arguments about why men leaders are needed”. - Charlotte Holgersson

(Pettersson, 2001:69, referering to: Rapport från ett forskarmöte, 1999)

Value creation from a gender perspective

As argued in the theories about IC, the management is a part of the intellectual capital, affecting the company's success (Jacobsen et al, 2005).

The theories and studies below are either used to give a better understanding about women leaders or are to help when analysing the empirical data. The picture below highlights the purpose of the different areas within women leaders.



Overview of women leaders. Picture 3.5

3.3.1 Leadership

A lot that has been written about leadership, still scientists can't agree on which different roles a leader can adapt, even when the characteristics of the roles are somewhat similar. The subject of leadership is ambiguous and there isn't a grand theory of leadership, it is hard to define leadership qualities that directly can be associated with effective leadership (Yukl, 1989). There is also a difference between leadership and the position as a leader. The position is allotted to the person while leadership is how to manage in this certain position and your subordinates. The number one issue for a leader is to transform the organizational visions and goals into tangible results with help from other employees (Yukl & Lepsinger, 2005).

The research about men and women leaders can be divided into two parts. The first argues that there is no significant difference between women and men in leader style. The researchers emphasizing with this point of view often have a strong connection to the academic world and they often use quantitative research. The other part argues that there is a difference between men and women leaders (Alvesson & Due Billing, 1999) and therefore men and women are to be categorized into different leadership styles. In this point of view, women leaders are seen as more adaptable, empathic and perceptive than men leaders. This leads the researchers to the conclusion that women have higher IE, emotional intelligence than men (Downey et al 2006). There are two main types of leadership styles, first coined by James McGregor Burns in 1978, transactional leadership transformational leadership. The transactional leadership is characterized as being dominant with a competitive aim and an independent view. The transformational leadership is strongly connected to emotions and high emotional intelligence and it is proven that women often tend to emphasize this leader style. In short, transformational leadership can be defined as a leader who affects followers. Transformational leaders develop followers to higher levels, regarding both the professional and personal levels. (Downey et al 2006)

3.3.2 Women leaders- where are they?

Today most managers are men. Data presented by Library House show that in 1996, 97 percent of newly appointed chief executives in UK were men. (http://www.libraryhouse.net/newsletters/issue58_15may2007.html, 2007) Similar statistics are to be found in Sweden, showing that 82 percent of Swedish management members are men (SOU 2003:16). This strongly indicates that women are having difficulties in reaching the top in today's organizations. According to Library House many women give up after continuously failing in the promotion process in large companies. A survey made by PwC shows that the number of women senior managers in the 350 biggest UK-listed companies has decreased with 40 percent during the last five years.

(http://www.libraryhouse.net/newsletters/issue58_15may2007.html, 2007) There are several studies showing the same thing, women that not are acknowledged in a firm tends to leave the firm in order to have a better chance of making a career (The Kingsmill review, 2001). One could believe that women not being acknowledged as leaders in large organization would start their own companies but data from Library house shows a different outcome, 95 percent of the chief executives at venture-backed companies are men. (http://www.libraryhouse.net/newsletters/issue58_15may2007.html, 2007)

3.3.3 Wages

From the earliest pay records, dated from the fourteenth century, until today, employers paid their men employees higher than their women employees. Some of the difference can be explained with women often working fewer hours than men. More women have part time jobs than men and it is more common for women to stay home with the children than men. (Padavic & Reskin, 2002) Another aspect effecting wage is the position in organizations; managers are often better paid than the average employees. As argued above women often have difficulties to become managers (SOU 2003:16), leading to lower wages. But still, after taking these aspects in consideration, women have lower wages and salaries than men. A study made by Padavic & Reskin (2002) shows that during year 1999 to year 2000 women American financial managers' earnings for full time work were 50.4 percent of the men's. Women American marketing and public relation managers earned 36.1 percent of men's earnings. The average wage gap is smaller in Sweden, Swedish women earn between 80 and 90 percent of the men's earnings. (Padavic & Reskin, 2002)

3.3.4 Opportunity costs

The cost of a goods or service is often thought of in monetary terms. Costs that are based on what one must give up³ as a result of a decision are called opportunity costs. (<http://www.netmba.com/econ/micro/cost/opportunity/>, 2007) Any decision that involves a choice between options, such as hiring women

³ The next best choice

leaders or not, has an opportunity cost. Note that it is not the sum of the available alternatives that makes the opportunity costs, but rather the benefit of the best alternative of them. The total opportunity cost can never be known with certainty and are sometimes called hidden costs. Opportunity cost can be assessed in terms of anything which is of value to the person doing the assessing, and do not need to be assessed in monetary terms. Assessing opportunity costs is fundamental to assessing the true cost of any course of action. When choosing whether to have women leaders or not there is no explicit accounting or monetary cost attached to the course of action. Ignoring the opportunity costs may cause the illusion that the benefits of the choice cost nothing at all. (http://en.wikipedia.org/wiki/Opportunity_cost, 2007) A number of effects of hiring women leaders are presented below.

3.3.4.1 Opportunity cost if only having men leaders

Leaders and their management play a significant part in increasing the company's profitability. As argued above women leaders tend to adapt a transformational leadership style, which is seen as a more effective style than the transactional leadership. An emotional leader tends to prior his/her employees' needs before his/hers own needs and the leader may be an inspirational source to motivate others to perform above expectations. Moods and emotions play a significant part in our behaviour and the decisions we make at work. If a leader is able to transform and communicate the "right" emotions to the employees it can lead to top performance. (Downey et al 2006)

Another reason why women leaders are needed is due to group performance. A group or team perform best when it is heterogeneous and consists of different personalities and competences. Each team role has different kinds of strengths and weaknesses (<http://www.belbin.com/belbin-team-roles.htm>, 2007). According to the study "Women to the top" it is also important with mixed teams to be able to provide products and services that satisfy all customers' needs and wishes. Half of the consumers are women, and this should also be the case in the top management in organizations, giving the organization the best conditions to satisfy all customers. (www.women2top.net, 2007)

Kiger (2006) argues that the employees in a company should represent the shareholders in order to create more value. One aspect of this is an organization's investors and owners which lately have shown a bigger interest in equality. Women have power in the society; they are decision-makers, owners, and consumers. The political organizations effecting company conditions consist of 50 per cent women. Not acknowledging women as leaders can lead to bad publicity but also legal difficulties and thereby lead to costs. Companies that discriminate women risk lowering their brand value. (www.women2top.net, 2007)

According to Alvesson & Due Billing (1989) one of the reasons why there is a need for women leaders is the "resource argument". If men and women add equal value, the amount of possible leaders increases if promoting women, leading to a greater possibility to find the most competent person. If the belief is instead that men and women are different and have different competencies you are missing out on competencies if women leaders not are to be found. (Alvesson & Due Billing, 1989) Many organizations that are dominated by men have difficulties

attracting women. According to “Women to the top” markets dominated by men can create a positive image hiring and promoting women, thereby they attract both competent women and men. More women in the top management affect the recruitment process and open up opportunities for women. (www.women2top.net, 2007)

3.3.4.2 Opportunity costs of having women and men leaders

A negative effect of more women leaders is that group loyalty is affected by the similarity of group members. A high level of diversity might lower the effectiveness in a group due to low group loyalty (Oxelheim et al, 2006). In management teams, trust is facilitated by similarity. When the environmental uncertainty is high, team member trust may be more advantageous but it is more difficult to achieve that trust. (Kanter, 1977)

Another aspect of diversity is that higher costs of collective decision making have been seen in heterogenous groups (Oxelheim et al, 2006 referring to Arrow, 1951). Therefore group diversity might lead to less efficient meetings, a higher risk of ambiguities, misunderstandings, decision errors, and conflicts of interest. If increasing the number of women leaders mean increasing the total number of managers in a company it might have a negative effect on financial performance due to the additional costs of more managers (Oxelheim et al, 2006).

3.4 MEASUREMENT

“If you can’t measure it, you can’t manage it.” – Garvin

(Roos et al, 2005:230)

The primary motivation for measurement is the need to understand what it means to measure things in social science, like preference and value (Pike & Roos, 2004). When measuring we are using a tool to transfer the characteristics of something from the real world into a numerical system that can be recorded, reported or used for some other purpose. The measurement theory is a branch of applied mathematics. (Roos et al, 2005)

Measurement is, according to Pike & Roos (2004) about two things; representation and ordering. Representation concerns itself with operations in which an attribute is represented by a measure. For example, 10 cm could be a representation of the size of an object but it does not give a full description of it. Ordering is about the amount an entity possesses, for example; 10 cm longer than 9 cm. Practical measurement keep these two things apart. Entities to be measured in the real world are first being represented, and then a numerical system is introduced in order to be able to handle the measurements so that the ordering requirements are maintained. In real world, this becomes a two-step process where the world that is being measured is described in the first step and a numerical system, with the purpose to describe the world in numbers, is introduced in the second step. The issues of ordering are handled within the

second step and in the transition to this step. This approach of measuring is known as the relational measurement theory. (Roos et al, 2005)

When measuring businesses we measure something called an empirical relational space since the businesses exist in the real world. When trying to represent things we have to consider:

- The nature of the attributes we use to describe the business.
- The relationship between these attributes.
- The operations we may want to perform on them.

If the object is an organization, the attributes are the resources that represent the intellectual capital and the traditional resources in a company. (Roos et al, 2005)

Resources used in business are varied and complex which make them difficult to measure. When trying to build a measurement system that values something complex and that is to be expressed from a viewpoint of different people it is essential that the theory of value and measurement come together. To be able to measure the value of women leaders and make it useful a third theoretical concept is needed; the multi attribute value theory (MAVT). This theory allows for the representation of the value of complex entities by using a hierarchical structure. This can be made operational by integration of mathematics to represent the subjective judgments made by stakeholders. This method requires the internal mathematics to be compliant with measurement theory. (Roos et al, 2005)

3.4.1 Financial Ratios

Valuation of a company is often done between companies active in the same industry. This is mainly done to position the company in its context compared to competitors. To determine the company's position at a market we can analyze different financial ratios. With this analysis we can get a quick overview of the company's financials and find out if it is profitable or not. We get a perception of what is good in the company or what needs to be improved and thereby we can determine its financial health. We can also analyze a company's development. There are different ratios with which you can measure a company's profitability and they are divided into different ratio group depending on which part of the company you aim to study. The capital structure is one of the different ratio groups and the most common business ratio and ratio in general used is return on capital. Other common ones in other ratio groups are solidity and profit marginal; these are often presented in the company's annual report since they are easy to compare with different companies. (Hult, 2003)

Equity (Re).

Result after financial holdings/ own capital. This financial ratio is a measure to show how well the company has succeeded during the year. It shows how many Swedish kronor the company is getting back on every one invested. (Hult, 2003)

Return on total capital (Rt).

(Result after financial holdings + cost of interest)/ (debt + own capital). The return on total capital shows how well a company increases the interest of their whole capital. If the figure is larger than expected by owners and loan givers, it is a good figure. (Hult, 2003)

Solidity.

Solidity is a ratio which shows a company's capital structure, that is how much of the company's total assets that have been financially supported with own capital. The ratio gives a perception of how stable the company is and how well it can resist future losses and survive in the long run. (Hult, 2003)

Value added.

Value added shows the value of a company's productions minus the value of the assets used

(<http://sv.wikipedia.org/wiki/F%C3%B6r%C3%A4dlingsv%C3%A4rde>, 2007). According to Affärsvärlden, the value added is the results before financial holdings + amortization + employee costs (<http://www.affarsvarlden.se/konsultguiden/definitioner.jsp>, 2007).

3.4.2 Measuring intellectual capital

According to Hancock et al (2007), IC measurement methods can be grouped into two categories: those that put a monetary value on the intellectual capital and those who do not. Pulic (2004) argues that many of the non-monetary measurement systems are operating with a large number of non-transparent indicators creating problems on a macro-level. It makes it difficult, if not impossible to compare organizations. His measurement method, the VAIC Model, therefore put a monetary value on the intellectual capital. (Pulic, 2004) Another monetary based method is the market-to-book value model, developed by various authors. The IC-index developed by Roos et al (1997) is an example of a non-monetary IC method (Hancock et al, 2007). The different methods are presented in detail further on in this chapter.

The intangible human capital is hard to measure and it is even more difficult to measure its components. How do you measure the heads and hearts of managers and employees? It is important to realize that you can't develop a general measurement tool for the parts in human capital and apply it as a mathematic formula. The measurement tool depends on the conditions in the organization. (Roos et al, 2005) The international Organization for Economic Cooperation and Development (OECD) has found that measuring the human capital in an organization is a process fraught with peril. Therefore there must be an agreement on intent, metrics and value. It is also important that agreements on definitions and goals are made in the beginning of the process. If this is made IC can provide a format for presenting results, but it requires the chosen measurements to be congruent with the true values of the organization. (Edvinsson & Malone, 1997) Even though it might seem to be an impossible task to measure the human capital Edvinsson and Malone (1997) still believe that it can be made. In order to succeed measuring it is important that the metrics are:

Value creation from a gender perspective

- Well-reasoned, so that only the meaningful aspects are measured.
- Well-designed, so no noise of other subjective variables are picked up.
- Teleological, the measures must be chosen so that the not only reflects where the company is but also where it is going.

Pike and Roos (2004) suggest five conditions for a business measurement scheme to be capable of measuring business performance. These are: completeness, distinctness, independence, agreeability, and commensurability.

- *Completeness* concerns the subject of measurement to completely describe what is to be measured. The meanings of the attributes must be fully defined and their aggregate must reflect all the resources used and how they are used.
- *Distinctness* is used to eliminate double counting.
- *Independence* concerns the relationship between the entities that are being measured. It requires normal mathematic conditions such as commutativity, associativity, transitivity, monotonicity.
- *Agreeability* concerns that the meaning of the attributes in the empirical system is fully reflecting the numerical system. The attribute can not be represented in a numerical system by a proxy with different meaning.
- *Commensurability* concerns the importance of making the measurements valid by normalizing a ratio scale into a common scale. Failure at doing this makes the conclusions drawn from the data meaningless.

3.4.3 Market capitalization

One of the early methods when measuring the intellectual capital follows Edvinsson's IC value scheme (Pike & Roos, 2004, Edvinsson & Malone, 1997). By calculating the difference between an organization's market value and their financial value you get the value of the intellectual capital (Roos et al, 2005). The method is based on a theory called Tobins Q, created by J Tobins, saying that the stock price tell if the market value the invested capital in a organization. (http://sv.wikipedia.org/wiki/Tobins_q, 2007)

Financial capital is the capital that is entered into the accounts. It is the value that is opposed to real assets such as buildings and other capital equipment and goods, and is often called the booked value. The financial value together with the intellectual capital represents the market value. (Edvinsson & Grafström, 1998)

The market value has by scientists been defined in different ways. One of the reasons why scientists have a hard time agreeing upon what market value is, is the different kinds of market value. For instance; fair market value, open market value, and current market value. The International Association of Assessing

Officers (IAAO) has agreed upon an economic definition of market value which is the most probable price that a property should bring in an open and competitive market and the price is not affected by undue stimulus. The value is set to a certain point and can be changed from day to day.

(http://www.agecon.purdue.edu/crd/localgov/Second%20Level%20pages/def_market_value.htm, 2007) When it comes to evaluating a company the evaluation becomes very subjective depending on who is doing the evaluation. For instance: In a situation of acquisition a seller might probably not rate the company to the same market value as the buyer will. Even if an advisor is doing the evaluation it will always be relative. (Hult, 2003)

Pike and Roos (2004) argue that the market capitalization method is incomplete if the aim is to value the company since it is based on financial figures, increased by selected intangible assets. But Sveiby (1995) argues that the only way to measure intangible assets is by looking at the market value. Hancock et al (2007) say that this method can only be used for companies that are listed on the stock market.

3.4.4 IC-index

The IC-index is another method of how to calculate the intellectual capital in an organization. It is attributed to Roos et al (2004) and shares many similarities with Edvinsson's Skandia market value system. It is based on a complete description of the resources used to create value in an organization. In practice there are no reasons why these attributes can't be distinct and independent. (Pike & Roos, 2004)

According to Roos et al (2005) the first step in calculating intellectual capital is to identify the different resources. The different resource categories are: human, organizational, relational, physical and monetary (Roos et al, 2005). We decided to put the organizational and relational categories as one; structural, due to our description of the structural capital above. Different resources, determined by the employees in the organization, are then placed underneath the different categories. It is important for the organization to think through the types of resources existing in the company and try to identify them with as few words as possible. In order to find all resources it is important to ask different people within the organization. (Roos et al, 2005)

When identifying the different resources, weighting the resources is necessary since different resources have different importance for the organization. According to Roos et al (2005) the judgment has to be made on three dimensions.

- How much influence a given resource has on the organization's ability to create value?
- What quality a given resource has compared to the ideal?

- What quantity of the resource the organization has access to compared to the ideal?

One way of doing this is to divide 100 points between the different resource categories. Having twice as many points means that the category is twice as influential on the organizations ability to create value. The next step is to divide 100 points between the resources within the different resource categories. (Roos et al, 2005)

The IC index process is a guide but not the determinant for the metrics. It is possible to make this part of the index process fully compliant with measurement theory but the original metric set in the numerical relation system is incomplete (Pike & Roos, 2004).

3.4.5 VAIC

Today organizations invest, not in plants and machines, but in employees. They are becoming the key factor in value creation and therefore they combine two key resources, financial capital and intellectual capital. (Pulic, 2004) Pulic uses assumptions from Edvinsson's work, saying that a company's value can be described in financial resources and intellectual capital that is divided into structural and human capital (Pike & Roos, 2004).

With the same resource, an organization can create more or less value. Therefore, according to Pulic (2004), one essential question is to find out a way of measuring whether value has been created or destroyed. According to Pulic (2004) his goal has been to find an index that can be used by all participants in the value creation process, employees, management, investors, shareholders, and business partners. This index has to be able to indicate the real value and performance of a company and all its business units.

One side of value creation is the relationship between the customer and the product or service. The other side is the relationship between the created value and the resources used to create the product or service. The relationship between the resources and the result is by Pulic (2004) referred to as efficiency. To be able to understand the efficiency of intellectual capital it has to be measured. The basic definition of value added (VA) is:

$$VA=OUT-IN$$

Where OUT= the total sales and IN= the cost of bought-in materials. VA can also be calculated from the organizations accounts.

$$VA= OP+ EC + D + A$$

Where: OP= operating profit; EC= employee costs; D =depreciation; A = amortization. (Pulic, 2004) It is also to be compared to de definition of value added by Affärsvärlden mentioned above:

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VA = results before financial holdings + amortization + employee costs
(<http://www.affarsvarlden.se/konsultguiden/definitioner.jsp>, 2007).

Since VA is an objective indicator and shows the ability to create value it needs to include salaries and interest on financial assets, dividends to the investors, taxes to the state and investments in future development. The salaries are no longer a part of the INPUT but these expenses are seen as investments. (Pulic, 2004)

According to Pulic (2004) all the employee's expenditures lie within the human capital. The efficiency of the human capital is:

$$HCE=VA/HC$$

HCE= human capital efficiency for the company; HC= total salaries and wages for the company. (Pulic, 2004) HCE shows how much VA is created by a dollar spent on employees and the relationship between indicates the ability for the human capital to create value (Hancock et al, 2007). The structural capital (SC) is calculated as follows:

$$SC= VA-HC$$

Since both HC and SC increase if the intellectual capital increases the structural capital efficiency (SCE) is calculated as:

$$SCE=SC/VA$$

In order to calculate the intellectual capital efficiency (ICE) you add up the efficiency of human and structural capital:

$$ICE= HCE + SCE$$

In order to get full insight of the efficiency of value creation, financial and physical capitals need to be taken into account. The efficiency of the capital employed (CEE) needs to be calculated:

$$CEE= VA/CE$$

Where CE= book value of the net assets of the company. All three efficiency indicators need to be added up in order to make a comparison of the overall value creation.

$$VAIC = ICE + CEE$$

VAIC= value added intellectual coefficient. VAIC measures how much new value that has been created per invested monetary unit in each resource. A high VAIC indicates a higher value creation in the using the organization's resources. Only VAIC and ICE show if any value has been added. (Pulic, 2004)

According to Pike and Roos (2004) VAIC differ from most IC methodologies since while IC is derived from resource based accounting, VAIC is activity based.

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All measurements are depending on ratios of hard financial data. The method is described as a set of processes and activities and Pike and Roos (2004) argue that it can be a complete system. But there are no rules guiding the de definition of the activities which is why it is unlikely that the metrics are distinct and independent. Pike & Roos (2004) argues that the measurement system has agreeability but points out that the method is more based for industry comparison rather than the company itself.

4. EMPIRICAL DATA

The chosen case organization, Caran, is a large consultant firm localised in Gothenburg, Sweden. In this chapter we will present Caran, and the respondents being interviewed. The results from the interviews will also be presented in this chapter.

4.1 ABOUT CARAN

Caran AB is a twenty-five year old consultant company specialized in industry design and product development. They offer complete development solutions, called Total Design Engineering. This has proven to be very effective when it comes to being profitable in complex projects (Annual Report, 2005). They are presenting a prototype to the customer; working from idea to solution. After the prototype is done, the work for Caran is finished and it is up to the customer to take the solution into their production. Initially Caran were specialized in the auto mobile market but today they work within several areas, still with main focus on the vehicle industry, for instance Volvo, Saab and Scania.

The brand was developed in the beginning of 1980 and has grown and developed through acquisitions. Caran is active in the southern and the middle parts of Sweden and has 11 offices in this area. Besides Sweden they are also active in England, Germany and India. 2006 the company was bought by VM-data who is a part of the LogicaCMG concern (www.caran.se, 2007). During the process of this thesis VM-data sold Caran in order to be able to better focus on their IT-services. Caran was bought by the Swedish business group JCE Group AB for 403 million Swedish kronor.

Today Caran has about 1200 employees, 600 of them are located at the head-office in Gothenburg. Caran has experienced a great increase in number of employees, since 2005 they have gone from 885 to 1200 employees. In total Caran has 130 managers, 14 percent of them are women. In Caran's top management there are three women out of eleven members, that is 27 percent women. In total, 21 percent of Caran's employees are women. (www.caran.se, 2007, Annual report, 2005). The median Caran employee is a man, in his thirties and an engineer.

In Caran they are working after the vision “The winner’s partner”. Their aim is to create a reputation saying that if working with Caran you will become a winner.

4.1.1 The respondents

Lennart Andersson is the marketing director (Mkt) in Caran and has been in the organization for one year. He has been working with Caran as a PR consultant two years before he started in the organization. He mostly works with communication and brand development. Andersson is a member of Caran’s top management.

Thomas Andrén is the financial manager (CFO) of Caran and is a part of Caran’s top management. A short interview over the phone was held with Andrén, concerning Caran’s financial situation.

Agneta Lunden-Hjält is the human resource manager (HR) in Caran. She has been in the organization since 2001 and is the only employee working with human resources. She is one of the members in Caran’s top management and the author’s main contact.

Charlotta Uttersson is a division manager (Mgr) for models and prototyping. She has been in Caran for three month and has not worked in the industry before. She is, as the other respondents, a member of Caran’s top management. Uttersson’s main task is to manage her division, and she has a lot of customer contact working close with many clients. She is responsible for 50 employees, four of whom are women.

4.1.2 Corporate culture

All of the respondents are pointing out that Caran is a flat organization characterized with openness. The general idea is that everyone’s ideas can make a difference, which is why everyone’s opinions are welcome. Though it is a flat organization the roles within the company are clear, but it is a short way in the communication between the different levels in the hierarchy. Since the managers are realizing that freedom under responsibility is a good way to motivate the employees, they find it easy to delegate work, this also makes the employee feel more valuable to the company.

4.2 PROFITABILITY IN CARAN

4.2.1 Financial situation

Caran’s financial situation can be found in their annual report (Appendix I) which contains a traditional balance sheet. Caran does not measure their intellectual capital or its components, which is why its value is not to found on in their annual report. According to the respondents Caran is well aware about their intellectual capital and they argue that it is of great value for the company.

According to all four respondents Caran is making monetary profit. In 2005, Caran showed a positive result after financial holdings of 72 024 tkr, a big improvement compared to the year before when the result after financial holdings were 8 033 tkr and compared to year 2002 when the company showed a negative result of minus 54 434 tkr. Their annual report shows that added turnover in 2005 where 821 985 tkr. (Annual Report, 2005) Andersson talks about margins, telling us that Caran's margin is between 5 and 7 percent depending on how you choose to measure it. On Affärsvärldens homepage Caran's profit-margins are listed as 9 percent

(<http://www.affarsvarlden.se/konsultguiden/rankning.jsp?bransch=Teknik>, 2007). WM-data's profit-margins are listed 4 percent. (<http://www.affarsvarlden.se/konsultguiden/rankning.jsp?bransch=IT>, 2007)

Andrén argues that the profit can be shown in the amount of money Caran was sold for; 403 million SEK. He says that by using this value you can get an estimation of Caran's market value. According to Andrén the large part of this value lies within intangibles. He estimates that only about 20 million SEK of the market value lays in physical and monetary assets.

As mentioned above Caran's management consists of three women and eight men. The director is a part of the top management and is a man. The total salaries and wages for the women leaders in 2005 where 1 395 000 SEK, the men leaders (not the director) earned 4 575 000 SEK.

4.2.2 Management and profitability

All respondents agree that the management effects Caran's profitability. Lundén-Hjält argues that it is the management that set the standards in an organization affecting the rest of the employees. They are also the ones choosing the projects and who to make affairs with. Lundén-Hjält estimates that the management adds 25 percent more value to the organization than the average employee, she makes no difference between genders. Uttersson means that clearness from the management is the most important thing in order to make more money. She believes that correct information and the ability to communicate are essential. Andersson also talks about clear communication to clarify the organization's goals. He finds profitability to be one of the key issues for the management.

4.3 CARAN AND WOMEN LEADERS

"If we could find a way to measure the value of women leaders in Swedish kronor it would help us prove that our believes; that women leaders increase an organization's profit, are true."

- Andersson, Mkt

Andersson expresses a wish for being able to show that women leaders create value in Swedish kronor. He would find it easier to argue for promoting more women leaders if he could show the financial benefits in numbers, proving that his belief, that women leaders create more value, is true.

On Caran's website they acknowledge that they believe women leaders to increase the company's profitability. Last years management "kick-off" was dedicated to balance between genders in Caran and how to increase the amount of women leaders. Caran is now actively seeking more women leaders and is working for a better balance between women and men in the organization. They have just started a recruitment campaign to support this, investing about one million Swedish kronor. In the campaign they use slogans as:

- "We want leaders dressed in women clothing"

"Oh, so you are 32 and planning to have children? Good, when can you start?"

Their aim is to have the same amount of women co-workers as there are women engineers graduating (30 percent). Caran acknowledge that diversity in groups leads to better efficiency, a better work environment and better business performance. So when recruiting, Caran is actively seeking women and men, agreeing on the importance of women leaders. Caran is also pointing out that they want their employees to have the opportunity both to have a carrier and put a lot of effort on their family life, believing that this will attract more women. They understand that their key employees also want to have a family and Caran wants to make this possible for them. (www.caran.se, 2007) The respondents mention that other diversity aspects, such as cultural background, also play a significant part in creating diversity. But at the moment the focus is on gender.

4.3.1 Profitability

As mentioned above Caran is seeking more women leaders. But Uttersson several times points out that it is not the women themselves that create value. She argues that it is personality and personal competence that are of greatest meaning in order for a manager to create value, not gender. The value women leaders bring to Caran is due the diversity that follows groups with mixed personalities.

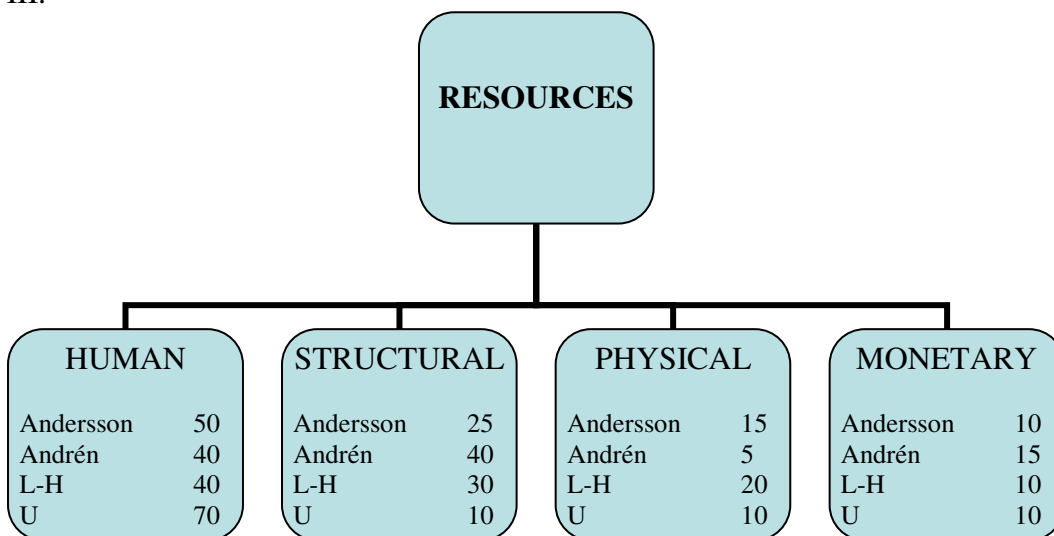
Andersson is of another opinion. He argues that he experience women to be more ambitious, and says that he has met few lazy women. He also believes that women make men work harder. When a women is entering a group consisting of mostly men she affects the men, making them want to perform better, showing their competence. He finds that this is due to the change in normal patterns, making the employees uncertain and therefore they feel the need to prove themselves competent.

The respondents have different opinions about the women themselves creating value due to their gender. But they all agree on that it is the mix of genders, more than the women themselves that creates profitability. They argue that a more heterogeneous management group increases the profitability. Andersson talks about balance between genders, he believes that having both women and men leaders makes the work more efficient. He together with Lundén-Hjält also believes that mixed groups works better as they create dynamic and ambition. Uttersson and Andrén find it more fun to work in a group consisting of both

women and men, and they believe that it is easier to do a good job if you are having fun.

4.4 RESOURCES

In Caran there are a great number of resources. The importance of Caran’s main resources is evaluated by the four respondents. The four main resources are human, structural, physical and monetary resources. All our respondents found the human capital to be the largest resource in Caran. Uttersson argues that Caran is built upon its employees, without them, they would not be able to exist. Their answers are presented below. The individual value schemes are found in appendix III.



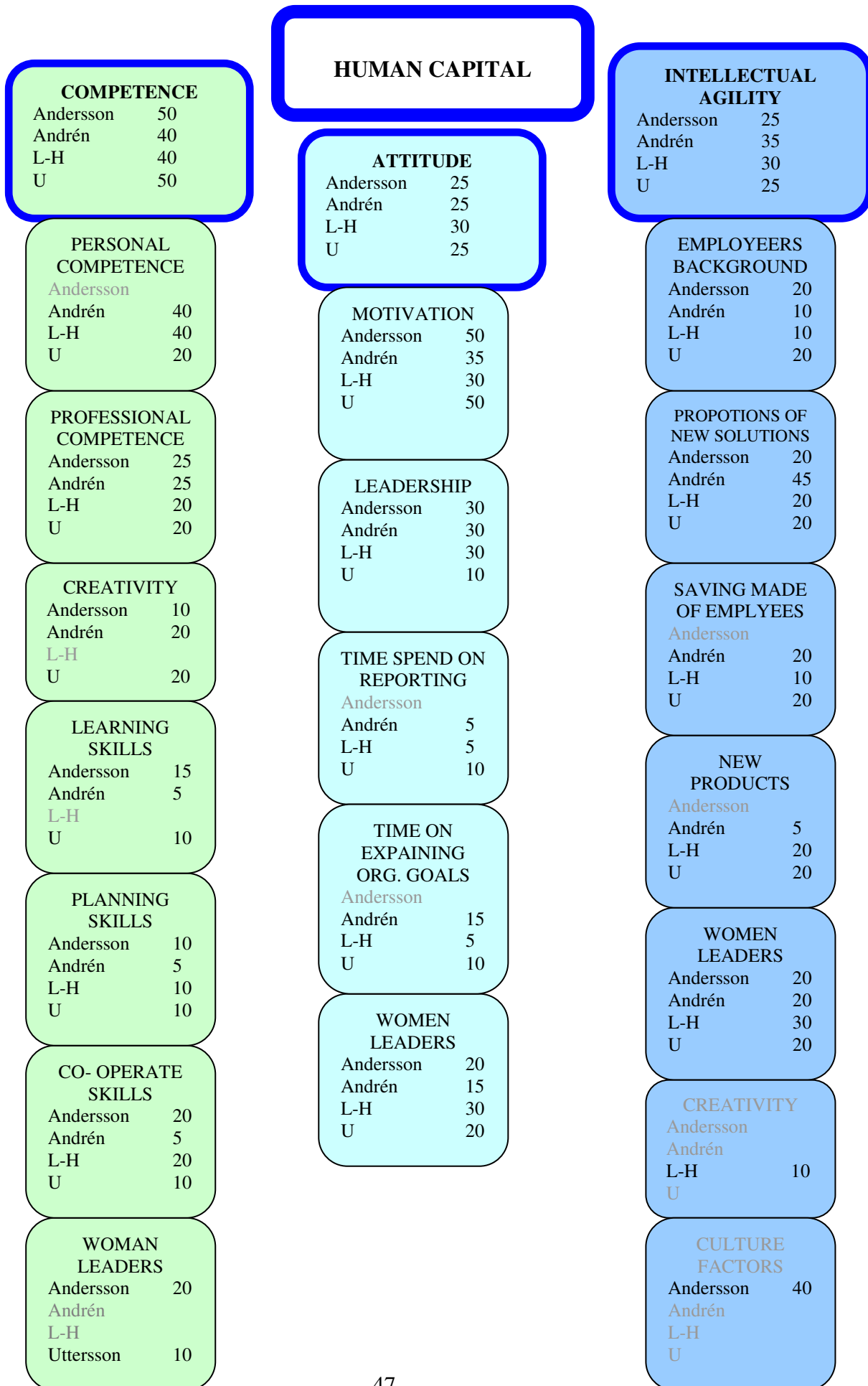
Resources in Caran. Picture 4.1 (Adapted from Roos et al, 1997)

The four respondents went further with the resource identification, estimating the different resources within the human and structural capital. The resources were given to the respondents but they were strongly encouraged to change the different resources. The two value schemes given to the respondents were the same as the two schemes presented in chapter three but the authors added women leaders as one resource, since the aim of this thesis is to study women leaders.

4.4.1 Human capital

The human capital and its components were of all respondents argued to be the category of highest meaning for Caran. Their employees and their brainpower are, according to the respondents, the most important asset in Caran. All our respondents agree that women leaders are one factor within the human capital, creating value in Caran. But their opinions differ when it comes to deciding what parts of the human capital that are affected by women leaders. If the respondents would have discussed the issue together they might have agreed on the different resources. The estimation of the human capital and the respondent’s thoughts about the different resources are presented below. Grey texts indicate that the respondent either added or deleted the resource. The individual value schemes are found in appendix III.

Value creation from a gender perspective



Competence. Andersson and Uttersson argue that an organization's total competence is affected by women leaders. They think that more women leaders create new aspects and different way of thinking which leads to an increased competence. Lundén-Hjält agrees that more women would create new ways of thinking but does not find women leaders to affect Caran's competence. Lundén-Hjält finds that competence depends on personality, not gender and that women leaders affect other things such as attitude and intellectual agility. But she believes that women are better at being engaged with several areas at the same time compared to men. Uttersson talks about acknowledging all competence, the women's as well, arguing that if the amount of possible leaders increase by acknowledging women it's a larger possibility that the most competent person is found. All respondents mention the difficulties of finding competent personnel. According to all respondents Caran risks missing out of competence by not acknowledging women and this is one of the main reasons to why more women leaders are wanted. None of the respondents think that hours of education is a resource affecting Caran's competence, which is why it is not included in the value scheme above. Lundén-Hjält also found the creativity not affecting the overall competence in Caran, while Andersson had the same reasoning about personal competence.

Lundén-Hjält points out that increased competence by promoting more women leaders is a sensitive subject. At the moment the management consists of most men, by saying that they would perform better with more women in the group is to say that they lack competence and that their positions as leaders are threatened.

Attitude. Caran wants their employees to have a positive attitude towards women leaders, believing that this will create a positive atmosphere affecting the profitability positively. They are active in a men dominant industry and few women have the right industry knowledge to be able to enter management positions. According to Lundén-Hjält Caran is trying to make the organization's attitude less "manly" and they are actively trying to change their employees' attitude towards women leaders. On their webpage they are seeking new employees, both men and women, which acknowledge the need for more women leaders.

"We are looking for women and men that agree with our point of view"

(www.caran.se, 2007).

Lundén-Hjält says that not all women will fit in the organization, but not all men either. Uttersson, as a new woman in Caran, found it easy to become a part of the organization. She would not describe Caran's atmosphere as typical manly. But she, together with Andersson agrees with Lundén-Hjält when she is saying that they aim is to make Caran more positive towards women leaders. All four respondents being interviewed believe that women leaders can create value by changing attitudes. Women leaders entering the management group bring new ways of thinking, creating the dynamics needed to make attitude changes. Andersson did not think that time spent on reporting and time spent on explaining organizational goal affects the attitude.

Intellectual agility. The respondents find women leaders to affect the intellectual agility in a positive way. They all mention women leaders to create new ways of thinking as one of the most important factors in women leaders creating value in Caran. Heterogeneous management groups are a very important aspect according to the respondents. Andersson talks about women leaders as creators of new patterns of behaviour. Uttersson and Lundén-Hjält agree, saying that women bring new ways of looking at things. More women leaders create the dynamics needed to be innovative. Lundén-Hjält argues that more women leaders would change the way the management think, and break the currently existing patterns. Women sometimes have another approach when solving problems compared to men, she says. Lundén-Hjält further argues that creativity is a part of the intellectual agility, and Andersson adds cultural background as a component effecting intellectual agility. He means that cultural background has more influence on intellectual agility than gender. He does not believe that savings made because of employees and new products affect the intellectual agility.

4.4.2 Structural capital

All respondents agree that women leaders affect the structural capital, increasing its value. The estimation of the structural capital and the respondent's thoughts about the different resources are presented below. Grey texts indicate that the respondent either added or deleted the resource. The individual value schemes are found in appendix III.

Value creation from a gender perspective

**STRUCTURAL
CAPITAL**

REALTIONS

Andersson	50
Andrén	40
L-H	40
U	30

**CUSTOMER
LOYALTY**

Andersson	50
Andrén	50
L-H	40
U	40

**LENGHT OF
RELATIONS**

Andersson	25
Andrén	15
L-H	20
U	20

**PARTNER
RELATIONS**

Andersson	5
Andrén	5
L-H	20
U	20

**SHARE OF
CUSTOMER**

Andersson	10
Andrén	10
L-H	10
U	10

**WOMEN
LEADERS**

Andersson	10
Andrén	20
L-H	10
U	10

ORGANIZATIONAL

Andersson	25
Andrén	35
L-H	30
U	30

**ADMINISTATIONAL
COSTS**

Andersson	50
Andrén	30
L-H	20
U	30

PROCESS TIME

Andersson	25
Andrén	20
L-H	30
U	30

**RECRUITMENT
PROCESS**

Andersson	25
Andrén	30
L-H	30
U	30

**WOMEN
LEADERS**

Andersson	
Andrén	20
L-H	20
U	10

DEVELOPMENT

Andersson	25
Andrén	25
L-H	30
U	40

**EDUCATIONAL
INVESTMENTS**

Andersson	50
Andrén	20
L-H	30
U	35

**PATENT
REGISTRATIONS**

Andersson	10
Andrén	35
L-H	10
U	10

**COST OF
RENEWAL**

Andersson	20
Andrén	20
L-H	20
U	25

**SHARE OF
BUSINESS
ACTIVITY, NEW
PRODUCTS**

Andersson	10
Andrén	
L-H	20
U	20

**WOMEN
LEADERS**

Andersson	10
Andrén	25
L-H	20
U	10

Relations. Most of Caran's customers are active in the heavy industry. Volvo AB is Caran's biggest customer, responsible for about 60% of Caran's work. The customers have in common that their industries are dominated by men, having few women leaders. Lundén-Hjält says that Volvo AB has more women employees than Caran but most other customers have less. She estimates the average women employees in their customer's organizations to be about 10 percent. Andersson describes Caran's average customer as a white middle aged man with a technical background.

Lundén-Hjält believes that women leaders would create better business opportunities and attract more customers. She argues that they would be able to reach the end customer better by getting different points of view from the management. Uttersson has a lot of customer contact and has experienced a very positive attitude towards her as a woman, much better than what she thought when she started working for Caran. She believes that she is creating value in her customer relations, so does Andersson., but she points out that it mostly is due to her competence and experience from other industries. Andersson talks about the future customer, believing him/her to be aware of the equality in organizations. All respondents in Caran find women leaders to attract customers.

Organizational. Caran has a written-down recruitment process that they follow when recruiting, making it a part of their organizational routines. According to Andersson one of the steps in Caran's recruitment process is to make sure that the two final candidates are one man and one woman. Lundén-Hjält says that recruiting more women is a part of there recruitment strategy but it is not outspoken. Uttersson doesn't believe that gender is an aspect when recruiting, only competence. She says that she would not be interested in a job if she got it because of quotas. She finds it important that the most competent person gets the job, not the person with the right gender. But at the same time one of Caran's recruitment slogans are: "*We want leaders dressed in women clothing*" making it difficult to say that they are not actively working for recruiting women leaders. Andersson argues that women leaders don't affect the organizational capital.

Development. Lundén-Hjält argues that a future value lays within women leaders. She believes that Caran is before other organizations in the same industry when working actively towards recruiting more women leaders. She argues that it is only a matter of time until the customer will search for organizations that are acknowledging women and when that day comes, Caran will be prepared. Andersson talks about the future customer wanting organizations that acknowledge women leaders. Andersson agrees saying that their recruitment campaign is new of its kind, and he doesn't know any other organization that express a need for women leaders as open as Caran does. He believes that this will create competitive advantages and future value. All respondents talk about women leaders as unused assets and by acknowledging them and using their competence they will be able to create value for the future. Andrén does not find share of business activity new products, to effect development.

5. ANALYSE

In this chapter the authors have tried to highlight the value of Caran's women leaders, using empirical data and the chosen theory frame. The authors have tried to interpret the empirical data in a neutral way and have tried to avoid being effected by the respondent's personal opinions and beliefs. Calculations have been made according to theories described in chapter three and the authors own thoughts. The reliability of the answers have been questioned and analyzed in order to find out if they reflect the true situation in Caran.

“If we could find a way to measure the value of women leaders in Swedish kronor it would help us prove that our believes; that women leaders increase an organization's profit, are true.”

- Andersson, Mkt

5.1 ANALYTIC BACKGROUND DISCUSSION

Before starting with the analysis the authors want to remind the reader of the purpose of this chapter; By looking at the empirical data in the light of this thesis theoretical framework, answer the three questions asked in chapter one:

- *Are the women leaders in Caran creating an increased profitability?*
- *If that is the case: is it possible to calculate that value?*
- *If that is possible, how can it be made?*

The authors argue that before this can be done an analytic background discussion is needed covering Caran's financial ratios, the problem with measuring intangibles and Caran's view on women leaders.

5.1.1 Financial ratios

First Caran's financial situation is analysed. According to the respondents in Caran the company is making profit, Caran's traditional balance sheet agrees. Caran's result in 2005 after financial holdings is 72 024 000 SEK. But this does

Value creation from a gender perspective

not tell the whole story, which is why the authors have chosen to analyze some of Caran's financial ratios using their annual report (Appendix I). According to the authors of this thesis, financial ratios are an interesting aspect when valuating if the women leaders in Caran create profit. Caran's women leaders can't be a part of the profit creation if no profit is created.

$$\text{Caran's equity (Re)} = 72\,024\,000 / 41\,126\,000 = 1,75.$$

This financial ratio is a measure to show how well Caran has succeeded during the year (Hult, 2003). Since Re is larger than one, the result after financial holdings is increasing the equity leading to the conclusion that Caran has performed well 2005.

$$\text{Return on total capital (Rt)} = 72\,024\,000 + 327\,000 / 249\,686\,000 = 29 \text{ percent.}$$

This figure show how much the interest is on the entire invested capital. If the figure is larger than what the owners and loan givers are expecting, it is a good figure. (Hult, 2003) Whether or not it is a good figure is hard for us to decide since it should increase the owners and loan givers expectations.

$$\text{Caran's solidity} = 18.4 \text{ percent.}$$

The solidity shows how big a part of Caran's total assets that have been financially supported by their own capital. With this ratio we can also see how stable Caran is and how it can survive future losses. (Hult, 2003) Since Caran is a part of a group it is possible that capital can be transferred to the parent company which reduces the solidity of the company. To be a subsidiary to VM data⁴ also makes it hard to judge how profitable Caran is since it can be backed up financially by the parent company. (Hult, 2003)

$$\text{Value added (VA)} = 71\,847\,000 + 477\,152\,000 + 6\,445\,000 = 555\,444\,000 \text{ SEK}$$

The value added shows the value of a company's productions minus the value of the assets used (<http://sv.wikipedia.org/wiki/F%C3%B6r%C3%A4dlingsv%C3%A4rde>, 2007). The employees are not seen as costs but as investments. The value added in VM data is 6 099 530 000 SEK (<http://www.affarsvarlden.se/konsultguiden/rankning.jsp?bransch=IT>, 2007), significant higher than Caran's. But still the value added is positive even if Caran is not creating as much value as VM data.

The authors have come to the conclusion that Caran is making financial profit.

⁴ As Caran was when this analyze was performed

5.1.2 Calculate intangibles

Before starting to calculate the financial effects of women leaders, the authors find it necessary to give their point of view on whether or not it is possible to calculate intangibles.

Roos et al (2005) argue that the intangible human capital is hard to measure and that it is even more difficult to measure its components. The authors of this thesis, the international Organization for Economic Cooperation and Development (OECD) together with Edvinsson and Malone (1997) agree. If trying, Edvinsson & Malone (1997) mention that it is of great importance that the measurements are congruent with the true value of the organization.

Measuring IC can't be made by developing a general measurement tool and applying it as a mathematic formula (Roos et al, 2005). This makes the authors of this thesis realize that every time an IC measurement is to be done, new aspects have to be under consideration which is why no general measurement method exists, yet Edvinsson & Malone (1997) believe that it is possible to measure an organization's IC. Their opinion gives the authors hope and the courage to try to calculate the financial effects of women leaders in Caran. IC is a complex part of an organization and due to its intangible nature (Swart, 2006) the authors believe that an estimation of the intellectual capital and its components is more likely to be found than an exact calculation. Their believe and hope though, is that the estimation is reflecting the true situation in Caran.

5.1.3 Caran and women leaders

Since the measurements methods below are based on the respondents in Caran the measurements most likely is reflected by their personal opinions. Therefore the authors argue that it is essential to clarify the respondent's and Caran's view of women leaders and profitability.

Caran recently invested one million SEK in a recruitment campaign that strongly indicates a wish for more women leaders. It is clear that Caran views women leaders as value-creators. The respondents express two main reasons to why more women leaders are wanted. The first is due to the benefits following increased diversity (<http://www.belbin.com/belbin-team-roles.htm>, 2007). The other is connected to Alvesson's & Due Billing's (1998) resource argument, arguing that if the amount of possible leaders increase by acknowledging women, it's a larger possibility that the most competent person is found. All respondents agree that by not acknowledging women leaders, Caran might miss out of competence. Their aim is to hire persons with the highest competence regardless gender, and since there are no difference between men and women's average intelligence and competence (Whal, 2001) they believe they are missing out of competence by not hiring women. Caran is aware that other equity aspects, such as cultural background also would have given the same benefits but at the moment, the gender aspect is in focus.

Lundén-Hjält and Uttersson argue that it is not the women themselves that create value, women in Caran are not better than men. According to them a person's

skills and competence is due to personality, not gender. The value is instead created due to the diversity that follows a more heterogeneous management group, creating dynamic and new ways of thinking. Andersson agrees but he also believes that women have an effect on the value creation in Caran due to their gender, he found women to be more ambitious than men. The respondents at Caran do not seem to agree with Oxelheim et al (2006) or Kanter (1977) when they argue that a higher level of diversity might lower effectiveness and create a low group loyalty.

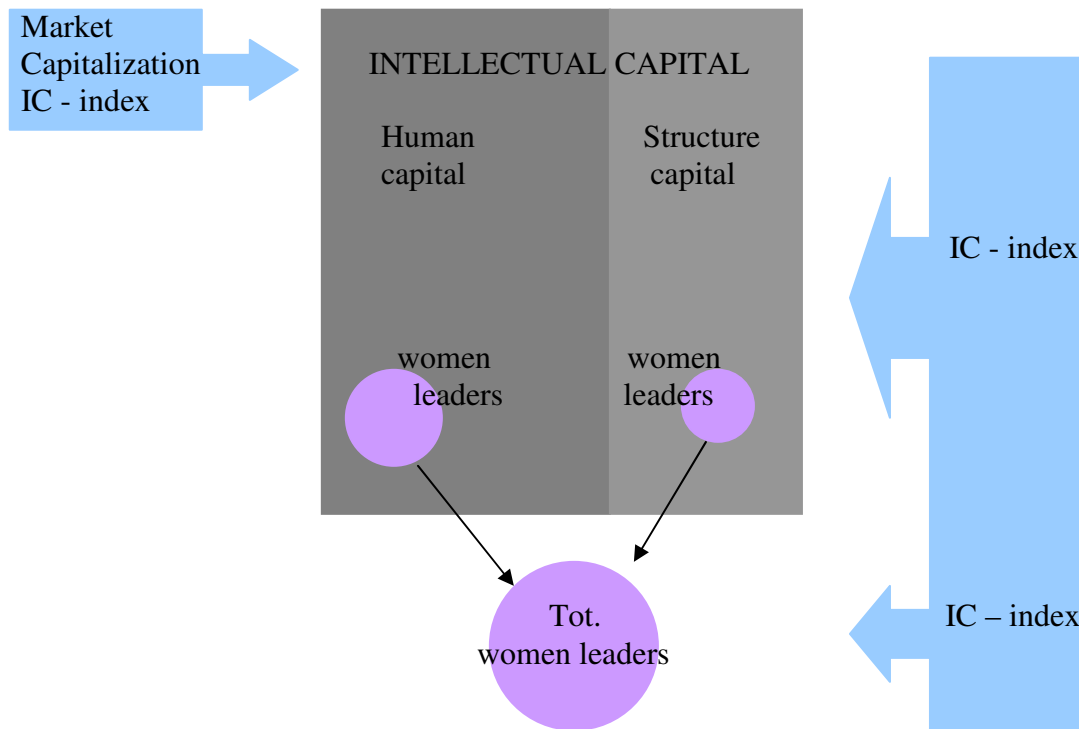
5.2 MEASUREMENT

After showing that Caran is making financial profit, the authors believe that it is possible to do an estimation of the financial effect of women leaders. Caran argue that women leaders create financial value and it is now time to find out the true situation in Caran by calculating the financial effect women leaders have on Caran's profitability. Due to the intangible nature of IC and the difficulties in measuring it, the authors decided to use two different IC measurement methods as a starting point, one internal and one external when estimating the value of Caran's women leaders.

5.2.1 WL - index

In order to estimate the value of women leaders in Caran the authors first created a method they choose to call WL-index, women leaders-index. This method is a mix between the non-monetary IC-method developed by Roos et al (2005) and the monetary market capitalization method (Edvinsson & Malone, 1997). The aim is to evaluate the value of the intellectual capital with help from the market capitalization method and then evaluate the percentage of the IC that is created by women leaders, using the IC-index method. This is shown in the picture below.

Value creation from a gender perspective



WL-index. Picture 5.1

The WL-index method has four steps:

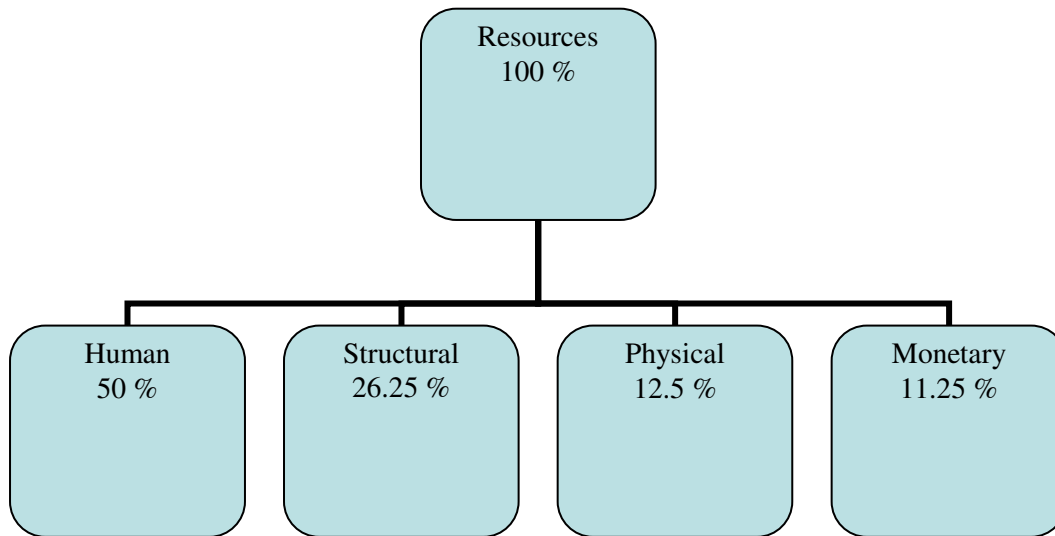
1. Estimate the amount of Caran's value added of IC, human capital and structural capital.
2. Estimate the value added by women leaders within the human capital.
3. Estimate the value added by women leaders within the structural capital.
4. Estimate the total value added by women leaders in Caran.
5. Estimate each respondent's valuated total value added by women leaders.

1. According to Edvinsson & Malone (1997) an organization's market value consists of the financial value and IC. As argued by Edvinsson & Malone (1997) the intellectual capital consists of the human and structural capital. The authors argue that this way of thinking can be used on an organization's value added as well. The total value added in Caran consists of value added from financial resources and value added from the IC. The value added IC consists of the value added human capital and the value added structural capital.

In order to estimate the amount of value added by Caran's women leaders, the authors choose to use Roos' et al (2005) theories about IC index. This method is based on a complete description of the resources used to create value in an organization (Roos et al, 2005). As argued in chapter three the four different resource categories are human, structural, physical and monetary resources. 100

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points were divided between the different resource categories by the respondents. Their average answers from our respondents were:



Average estimation of Caran's resources Picture 5.2 (Adapted by Roos et al, 1997)

According to the author's calculations above the value added in Caran is 555 444 000 SEK. That makes the:

Value added human capital = 277 722 000 SEK

Value added structural capital = 145 804 050 SEK

Value added intellectual capital = 423 525 050 SEK

Calculations:

VA human capital = $555\,444\,000 * 0.50 = 277\,722\,000$ SEK.

VA structural capital = $555\,444\,000 * 0.2625 = 145\,804\,050$ SEK

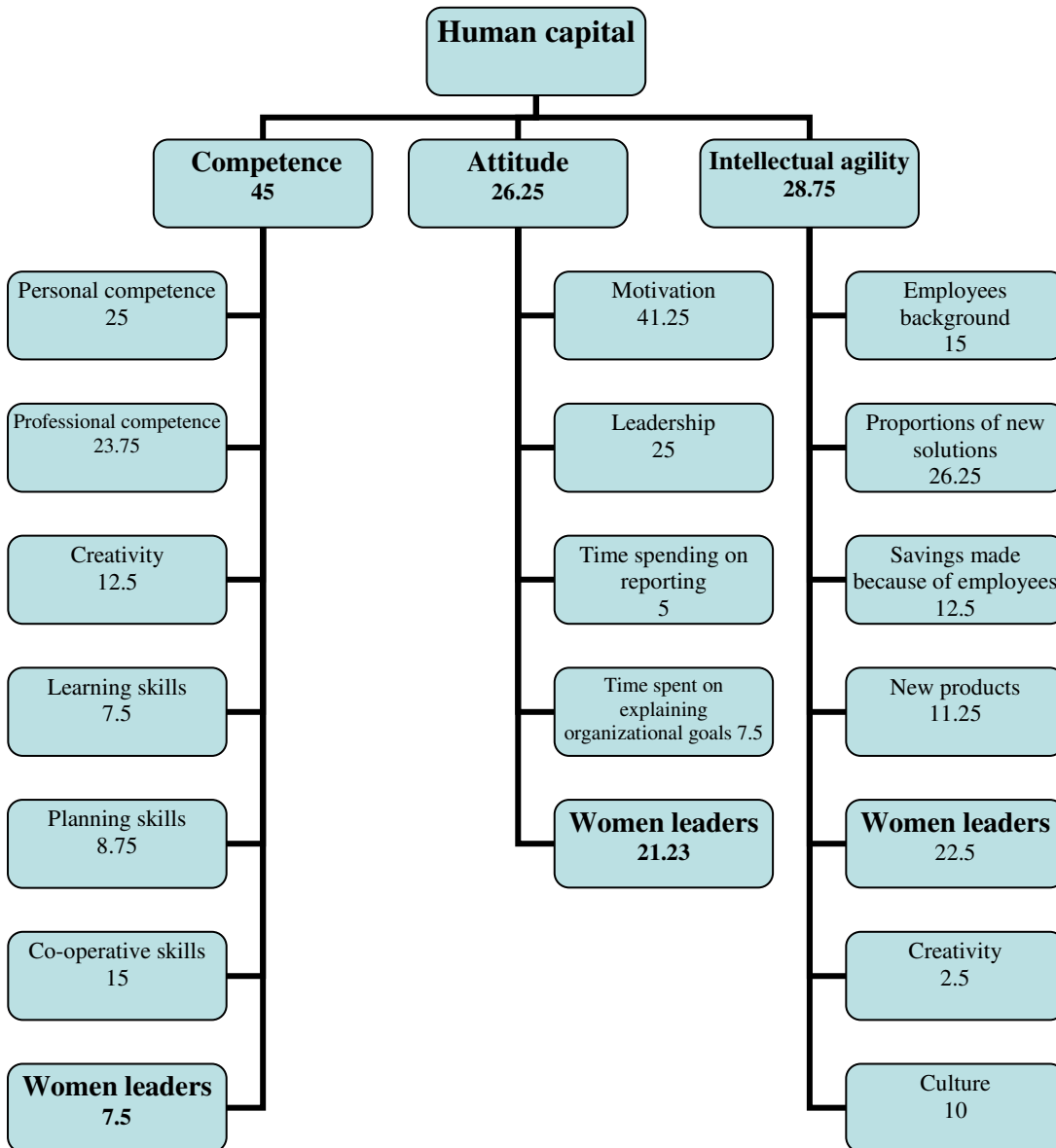
VA intellectual capital = $277\,722\,000 + 145\,804\,050 = 423\,525\,050$ SEK

According to Roos et al (2005) different resources within the four resource categories are then to be identified by different people within the company. Due to the aim of this study, to calculate the financial effect of women leaders, and due to the fact that women leaders are intangible resources (Jacobsen et al, 2005) the authors decided only to identify the resources within the human and structural capital. The theories presented in chapter three were used as a base when identifying the different resources. Only one aspect was added to Roos et al's (1997) resource identification by the authors within every category group in the human and structural capital: Women leaders. The respondents were strongly

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encouraged to change the resources according to the situation in Caran. 100 points were then divided between the different resources in each category.

2. Using the valuations made on the human capital, the mean value of the valuations were calculated by the authors. These are presented below.



Mean value, human capital. Picture 5.3 (Adapted by Roos et al, 1997)

The authors used the mean value from the respondent’s valuations to calculate the value added by women leaders within the human capital. This was made by calculating the value added within the three resource categories: competence, attitude and intellectual agility. The value added by women leaders were calculated by multiplying the value added in each category with the percentage of women leaders. Finally the value added from women leaders from all three

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resource categories were added up, presenting the value added by women leaders, human capital, to be 42 829 939 SEK.

Value added by women leaders, human capital = 42 829 939 SEK

Calculations

Competence: $277\,722\,000 * 0.45 = 124\,974\,900$ SEK.

Women leaders effecting competence: $12\,497\,490 * 0.075 = 9\,373\,118$ SEK.

Attitude: $277\,722\,000 * 0.2625 = 72\,902\,025$ SEK.

Women leaders effecting attitude: $72\,902\,025 * 0.2125 = 15\,491\,680$ SEK.

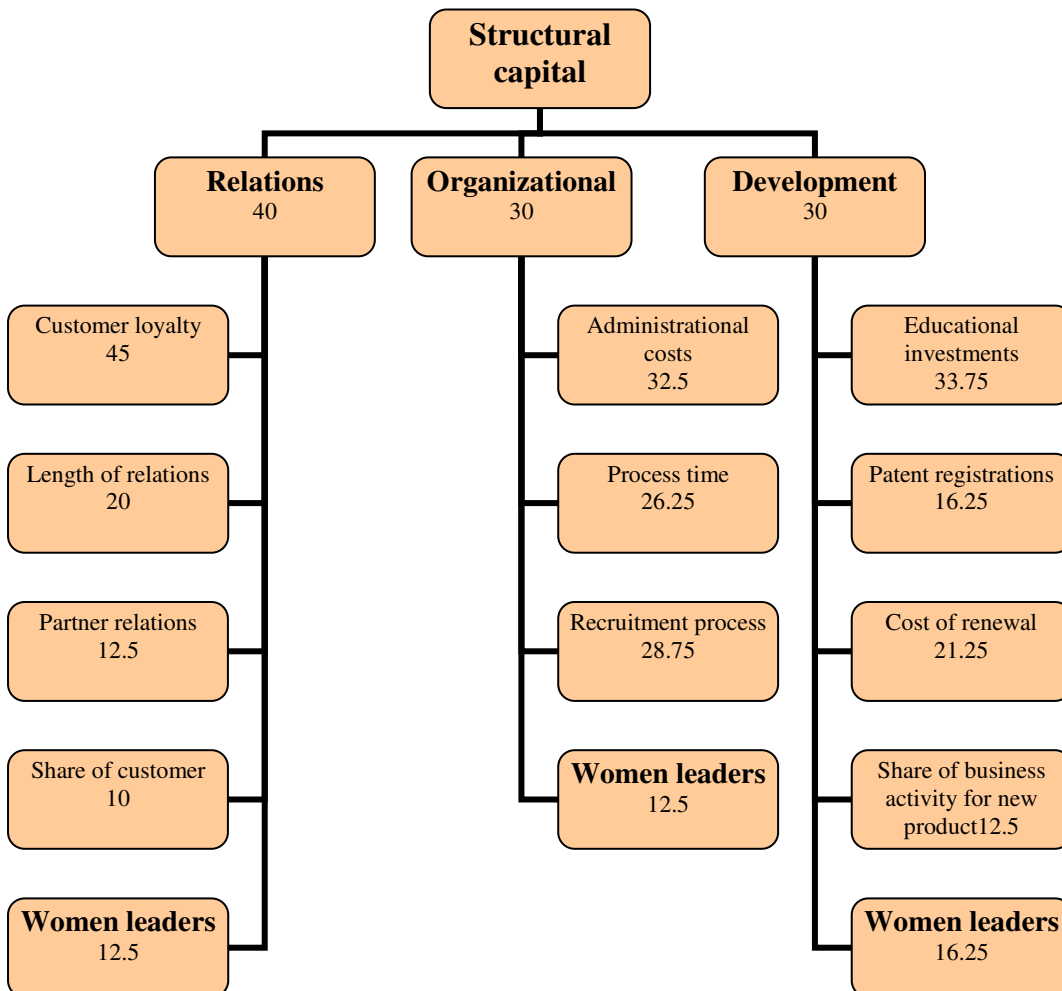
Intellectual agility: $277\,722\,000 * 0.2875 = 79\,845\,075$ SEK.

Women leaders effecting intellectual agility: $79\,845\,075 * 0.225 = 17\,965\,141$ SEK.

Value added by women leaders in the human capital: $9\,373\,118 + 15\,491\,680 + 17\,965\,141 = 42\,829\,939$ SEK.

3. After estimating the value added by women leaders in the human capital it is left to estimate the value added by women leaders in the structural capital. The same valuations made on the different resources within the human capital were made on the resources within the structural capital. The mean value of these valuations is presented below.

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Mean value structural capital. Picture 5.4 (Adapted by Roos et al, 1997)

As with the human capital, the value added by women leaders within the structural capital was calculated. First the value added within the three resource categories: relations, organizational capital and development were calculated, by multiplying the value added structural capital with the percentage of all three resource categories. The value added by women leaders within the structural capital where then calculated by multiplying the value added within all three resource categories with the percentage women leaders. Finally the value added from women leaders where added up presenting the value added by women leaders within the structural capital to be 19 865 774 SEK.

Value added by women leaders, structural capital = 19 865 774 SEK.

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Calculations

Relations: $145\,804\,050 * 0.4 = 58\,321\,620$ SEK.

Women leaders effecting relation: $58\,321\,620 * 0.125 = 7\,290\,202$ SEK.

Organization: $145\,804\,050 * 0.3 = 43\,741\,215$ SEK.

Women leaders effecting organization: $43\,741\,215 * 0.125 = 5\,467\,652$ SEK.

Development: $145\,804\,050 * 0.3 = 43\,741\,215$ SEK.

Women leaders in development: $43\,741\,215 * 0.1625 = 7\,107\,947$ SEK.

The total value of women leaders in the structural capital is $7\,290\,202 + 5\,467\,652 + 7\,107\,947 = 19\,865\,774$ SEK.

4. Finally it is left to summarize the value added within the human and structural capital, and thereby get the total estimated value of the value added by women leaders in Caran.

Value added by women leaders in Caran $42\,829\,939 + 19\,865\,774 = 62\,695\,713$ SEK

5. The same calculations where also made on the four respondent's valuations, showing not the mean value, but each valuation individually. The calculations steps are not shown in detail but are made the same way as above using the individual valuations (Appendix III). The outcome of their valuations is presented below.

	Value added women leaders
Andersson	66 429 704 SEK
Andrén	59 015 925 SEK
Lundén-Hjält	56 655 288 SEK
Uttersson	49 296 855 SEK

Since they show such a difference in value the authors argue the average value is the most accurate estimation.

Calculations

Andersson: Value added women leaders human capital = $((277722000 * 0.5) * 0,2) + ((277722000 * 0.25) * 0,2) + ((277722000 * 0.25) * 0,2) = 55\ 494\ 400$ SEK.

Value added women leaders structural capital = $((145\ 804\ 050 * 0.5) * 0,1) + ((145\ 804\ 050 * 0.25) * 0,1) = 10\ 935\ 304$ SEK.

Andrén: Value added women leaders human capital = $((277722000 * 0.25) * 0,15) + ((277722000 * 0.35) * 0,20) = 29\ 855\ 115$ SEK.

Value added women leaders structural capital = $((145\ 804\ 050 * 0.40) * 0,2) + ((145\ 804\ 050 * 0.35) * 0,2) + ((145\ 804\ 050 * 0.25) * 0,25) = 29\ 160\ 810$ SEK.

Lundén-Hjält: Value added women leaders human capital = $((277722000 * 0.3) * 0,3) + ((277722000 * 0.3) * 0,1) = 33\ 326\ 640$ SEK.

Value added women leaders structural capital = $((145\ 804\ 050 * 0.4) * 0,1) + ((145\ 804\ 050 * 0.30) * 0,2) + ((145\ 804\ 050 * 0.30) * 0,2) = 23\ 328\ 648$ SEK.

Uttersson: Value added women leaders human capital = $((277722000 * 0.5) * 0,1) + ((277722000 * 0.25) * 0,2) + ((277722000 * 0.25) * 0,2) = 34\ 715\ 250$ SEK.

Value added women leaders structural capital = $((145\ 804\ 050 * 0.3) * 0,1) + ((145\ 804\ 050 * 0.30) * 0,1) + ((145\ 804\ 050 * 0.4) * 0,1) = 14\ 581\ 605$ SEK.

5.2.2 VAWLIC

Since the WL-index method is strongly affected by the respondents' beliefs and opinions the next method used only has one assumption from the respondents. The authors chose to call this method VAWLIC. Value added women leaders intellectual coefficient. This method is a prototyping of some numbers based on assumptions from Lunden-Hjält at Caran and the methodology of Pulic (2004). In order to calculate the value added in Caran with this method, Caran's annual report 2005 (Appendix I) and additional wage and salaries numbers are used. With this method the value added by women leaders will not be presented in Swedish kronor. Instead an efficiency number will be presented, showing the women leader's ability to create value.

As argued above the value added (VA) in Caran, 2005 is 555 444 000 SEK. During 2005 Caran had 885 employees (Appendix I). That makes the average value added per employee (VAE) 627 620 SEK.

$$\text{Value added per employee (VAE)} = 627\ 620 \text{ SEK.}$$

According to the authors it is not possible to calculate the exact VA by each and every person within the organization. The authors are aware that not every person within Caran adds the same amount of value to the company. According to the discussion above Caran argues that women leaders create more value than the average employee. But when asking the human resource manager, Lundén-Hjält, she argues that every manager within Caran creates 25 percent more value than

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the average employee but that there is no difference between the genders in the value creation. This was a surprisingly answer due to Caran's believe that more women leaders would create more financial value yet the authors chose to follow Lundén-Hjält's opinion. The average of the value added by each manager member (VAMGM) is 784 525 SEK.

Value added by each manager member (VAMGM) = 784 525 SEK

In this thesis the focus is on Caran's women leaders. In Caran there are three women leaders, the total average value added by the three women leaders (VAWL) is 2 353 576 SEK. That is the value added per manager member multiplied with three since there are three women leaders.

Value added women leaders (VAWL) = 2 353 576 SEK.

To be able to fins out if Caran's women leaders create more value than the men leaders the value added by men leaders (VAML) are also calculated. Caran has eight men leaders; one of them is the director. Since this thesis concerns the top leaders but not directors, he is not included in the calculations. That leaves seven men managers to be compared with the three women leaders. The average value added by the seven remaining men leaders (VAML) is 5 491 678 SEK. That is the value added per management member multiplied with seven since Caran has seven men leaders.

Value added men leaders (VAML) = 5 491 678 SEK.

The efficiency of the human capital shows the ability for the human capital to create value (Hancock et al, 2007) and is calculated by dividing the value added with the total wages and salaries (Pulic, 2004). The total salaries and wages in Caran, 2005 were 314 237 000 SEK. The human capital efficiency coefficient (HCE) in Caran is 1.77 and shows the value added per Swedish krona spent on the employees.

Human capital efficiency coefficient (HCE) = 1.77

This though does not show the efficiency of Caran's management, only the efficiency of all Caran. First the authors of this thesis aim to calculate the human capital efficiency coefficient for Caran's three women leaders and then for their seven men leaders. The total salaries and wages for the three women leaders (WLC) in 2005 where 1 395 000 SEK, and the seven men leaders (MLC) 4 575 000 SEK. In order to calculate the efficiency of Caran's women leaders and thereby find out how much value added that is created per Swedish krona spent on women leaders a new concept is introduced: human capital efficiency of the women leaders (HCWLE). This is calculated by dividing the value added by women leaders with the total value of salaries and wages spent on the women leaders and is 1.69.

Human capital efficiency women leaders (HCWLE) = 1.69

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To be able to compare this figure and estimate if women leaders create more value than the men leaders in Caran the same calculations were made on the seven men leaders, and another concept is introduced; the human capital efficiency of the men leaders (HCMLE). The authors calculate this efficiency to be 1.20.

$$\text{Human capital efficiency of men leaders (HCMLE)} = 1.20$$

In Pulic's (2004) calculations he goes further, calculating the value added of the structural capital and the intellectual capital. He also takes the financial and physical capital into account. The structural capital (SC) in Caran is calculated by taking the value added minus total salaries and wages (Pulic, 2004) leading to the structural capital in Caran to be 241 207 000 SEK.

$$\text{Structural capital (SC)} = 241\,207\,000 \text{ SEK}$$

According to Edvinsson & Malone (1997) it seems to be a "double – arrow dynamic" between a company's human and structural capital. They further argue that structural capital is built by strong human capital and a strong structural capital has the ability to improve human capital. This is shown in Caran when Andersson argues that women make men work harder. A change in structure (more women leaders) affects the competence (human capital) making it better. Therefore the authors of this thesis argue that women leaders affect the structural capital. The structural capital per each employee (SCEM) in Caran is 272 550 SEK.

$$\text{Structural capital per employee (SCEM)} = 272\,550 \text{ SEK}$$

The same reasoning as with the value added per employee can be held with the structural capital. Every employee adds a different amount of value and the management member in Caran is estimated to create 25 percent more value than the average employee. Leading to the structural capital per management member (SCMGM) to be 340 687 SEK, structural capital by the three women leader (SCWL) to be 1 022 064 SEK, and structural capital by the seven men leader (SCML) to be 2 384 815 SEK.

$$\text{Structural capital per management member (SCMGM)} = 340\,687 \text{ SEK.}$$

$$\text{Structural capital women leader (SCWL)} = 1\,022\,064 \text{ SEK.}$$

$$\text{Structural capital men leader (SCML)} = 2\,384\,815 \text{ SEK.}$$

The structural capital efficiency (SCE) is then to be calculated by dividing the structural capital with the value added (Pulic, 2004). In Caran that is 0.43.

$$\text{Structural capital efficiency (SCE)} = 0.43$$

The same reasoning is made with the structural capital from men and women leaders, dividing the structural capital within each management group with the value added within that group. Leading to the structural capital efficiency women

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leaders (SCEWL) to be 0.43. The same structural capital efficiency for men leaders (SCEML) were found.

Structural capital efficiency women leaders (SCEWL) = 0.43

Structural capital efficiency men leaders (SCWLE) = 0.43

In order to calculate the intellectual capital efficiency (ICE) the efficiency of human and structural capital are added up (Pulic, 2004). In Caran the intellectual capital efficiency is 2.20, intellectual capital women leaders efficiency (ICWLE) is 2.12 and intellectual capital men leaders efficiency (ICMLE) is 1.63

Intellectual capital efficiency (ICE) = 2.20

Intellectual capital women leaders efficiency (ICWLE) = 2.12

Intellectual capital men leaders efficiency (ICMLE) = 1.63

Pulic (2004) further argues that the financial and physical capitals need to be taken into account in order to get full insight of the efficiency of value creation. In order to calculate the efficiency of the capital employed (CEE) the value added is divided by the book value of the net assets of the company (Pulic, 2004), in Caran that is 2.22.

Efficiency of the capital employed (CEE) = 2.22

The same reasoning as with the value added is made with the efficiency of the capital employed. In order to calculate the efficiency of the capital women leaders employed and the efficiency of the capital men leaders employed the net assets of Caran is first divided by the number employees in Caran, showing the average net asset per employee. That number is multiplied with 1.25 since Lundén-Hjält estimate the management to add 25 percent more value than the average employee. That leads to the conclusion that the average net asset per employee (CEEM) is 282 131 SEK, the net assets per management member (CEMGM) is 352 664 SEK, net assets women leaders (CEWL) is 1 057 992 SEK and net assets men leaders (CEML) is 2 468 646 SEK.

Net assets employee (CEEM) = 282 131 SEK,

Net assets per management member (CEMGM) = 352 664 SEK.

Net assets women leaders (CEWL) = 1 057 992 SEK.

Net assets men leaders (CEML) = 2 468 646 SEK.

In order to calculate the efficiency of the women leaders capital employed (WLCEE) and the efficiency of men leaders capital employed (MLCEE) the value added within each management group is divided with the net assets within that group. This leads to the conclusion that efficiency of women leaders capital employed is 2.22 and the efficiency of men leaders capital employed is 2.22.

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Efficiency of women leaders capital employed (WLCEE) = 2.22.

Efficiency of men leaders capital employed (MLCEE) = 2.22.

The final step in Pulic's (2004) model is to add the intellectual capital efficiency and the efficiency of the capital employed and thereby get the value added intellectual coefficient (VAIC). This measures how much new value that has been created per invested monetary unit in each resource. (Pulic, 2004) The same is made by measuring how much new value that has been created per invested monetary unit by women and men leaders. The authors thereby creates two new concepts value added women leaders intellectual coefficient (VAWLIC) and value added men leaders intellectual coefficient (VAMLIC).

Value added intellectual coefficient (VAIC) = 4.42.

Value added women leaders intellectual coefficient (VAWLIC) = 4.34.

Value added men leaders intellectual coefficient (VAMLIC) = 3.85.

By comparing these numbers, estimation can be made on whether women leaders create value or not. A higher efficiency number indicates that more value is being brought to the organization. This could be a way of finding out if women leaders bring more value to the organizations than men leaders. This can also be compared between organizations.

	Caran	Caran's women ledaers	Caran's men leaders
Human capital efficiency coefficient	HCE = 1.77	HCWLE = 1.69	HCMLE = 1.20
Structural capital efficiency coefficient	SCE = 0.43	SCEWL = 0.43	SCEML = 0.43
Efficiency of the capital employeed	CEE = 2.22	WLCEE = 2.22	MLCEE = 2.22
Value added intellectual coefficient	VAIC = 4.42	VAWLIC 4.43	VAMLIC = 3.85

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Calculations

VA = results before financial holdings + amortization + employee costs = 71 847 000 + 477 152 000 + 6 445 000 = 555 444 000 SEK

VAEM = VA / number employees = 555 444 000 / 885 = 627 620 SEK

VAMGM = 627 620 * 1.25 = 784 525 SEK

VAWL = 3 * 784 525 = 2 353 576 SEK

VAML = 7 * 784 525 = 5 491 678 SEK

HCE = VA / total wages and salaries (EC) = 555 444 000 / 314 237 000 = 1.77

WLE = VAWL / wages and salaries women leader (ECWL) = 2 353 576 / 1 395 000 = 1.69

MLE = VAML / wages and salaries men leader (ECML) = 5 491 678 / 4 575 000 = 1.20

SC = VA - EC = 241 207 000 SEK

SCEM = SC / number employees = 241 207 000 / 885 = 272 550 SEK

SCMGM = 272 550 * 1.25 = 340 687 SEK.

SCWL = 340 687 * 3 = 1 022 064 SEK.

SCML = 340 687 * 7 = 2 384 815 SEK

SCE = SC / VA = 241 207 000 / 555 444 000 = 0.43

SCEWL = SCWL / VAWL = 1 022 064 / 2 353 576 = 0.43

SCEML = SCML / VAML = 2 384 815 / 5 491 678 = 0.43

ICE = HCE + SCE = 1.77 + 0.43 = 2.20

ICWLE = WLE + SCEWL = 1.69 + 0.43 = 2.12

ICMLE = MLE + SCEML = 1.2 + 0.43 = 1.63

Book value of the net assets of the company = 249 686 000

Net assets employee = 249 686 000 / 885 = 282 131 SEK,

Net assets per management member = 282 131 * 1.25 = 352 664 SEK.

Net assets women leaders = 352 664 * 3 = 1 057 992 SEK.

Net assets men leaders = 352 664 * 7 = 2 468 646 SEK

CEE = VA / book value of the net assets of the company = 555 444 000 / 249 686 000 = 2.22

WLCEE = VAWL / Net assets women leaders = 2 353 576 / 1 057 992 = 2.22.

MLCEE = VAML / Net assets men leaders = 5 491 678 / 2 468 646 = 2.22.

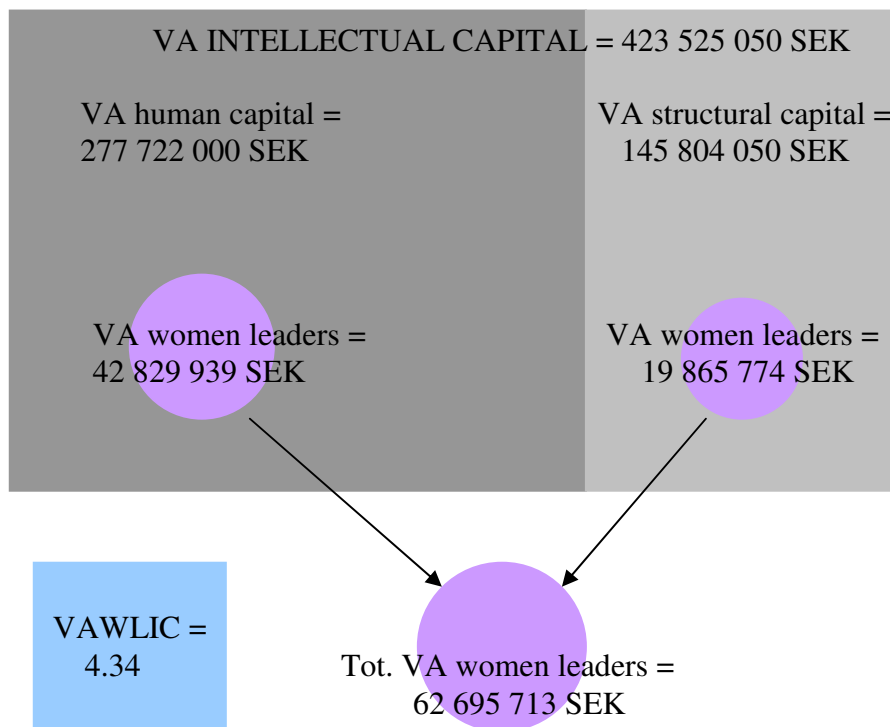
VAIC = ICE + CEE = 2.20 + 2.22 = 4.42

VAWLIC = ICWLE + WLECC = 2.12 + 2.22 = 4.34

VAMLIC = ICMLE + MLECC = 1.63 + 2.22 = 3.85

5.2.3 Value added by women leaders

Two different measurements on the value added by women leaders in Caran have been made, WL-index and VAWLIC. The first shows the value in Swedish kronor, the second shows the efficiency of the women leaders in Caran. The results of the methods are presented in the picture below, showing how much value Caran's women leaders create.



The estimated value of women leaders. Picture 5.5

5.3 CRITICAL DISCUSSION

5.3.1 WL-index

The estimated value added by women leaders in Caran is very high. The total value added in Caran was estimated at 555 444 000 million SEK. That makes $62\,695\,713\text{ SEK} / 555\,444\,000 = 11.3$ percent of Caran's value created made by their women leaders. Considering that Caran now (2007) has 1200 employees and only three women leaders ($3 / 1200 = 0.25$ percent) this is not a reasonable value. The authors quickly realized that the calculations made don't reflect the true conditions in Caran.

It should be taking into account that the value added is calculated using the annual report from 2005 and the resource estimation was made in 2007. The remaining part of the valuations of resources where also made in 2007. In order to get an accurate estimation the value added calculation and the valuation should have

been made during the same time. This though was not possible since the authors only had access to Caran's financial data through their latest annual report, 2005.

The large uncertainty in this measurement method is, according to the authors, due to the fact that the different resources were identified by the authors. Even though the respondents were encouraged to change the categories there is a great risk that the resources are not representing the true situation in Caran, making the method incomplete (Pike & Roos, 2004). As argued in the beginning of this chapter it is of great importance that the measurements are congruent with the true value of the organization (Edvinsson & Malone, 1997), something the authors of this thesis did not succeed with. Most likely the resources are effected by the authors and the theories used.

The respondents are not IC experts, which is why it can be difficult to identify resources within IC and evaluate them. In order to identify resources according to the true situation in Caran a lot of time should be spent on identifying the different resources together with the respondents. No resources should be given in advance so that disturbance is eliminated. It should have been done by all eleven managers and they should have done it together, as argued by Roos et al (2005), not individually as in this study. The persons doing the identification should have got a lot of knowledge about the organization and its IC. The author's suggestion to Caran is that the next management kick-off is dedicated to this matter.

The fact that the respondents knew that our thesis was concerning women leaders has most likely affected the result. This led to a focus on women leaders and other aspects such as cultural background and age-diversity might have been forgotten. In our interviews our respondents mention that other diversity aspects also effect Caran's profitability but when doing the valuation only Andersson mentioned culture as aspect, and only once. This indicates that other aspects have been forgotten due to the strong focus on women leaders, which is why the effect of women leaders most likely was valued to high. As argued above the valuation should have been made without any resource given from the beginning in order to make this problem as small as possible. At the moment Caran has a focus on women leaders and they strongly believe that more women leaders would benefit the organization. By using a method completely dependent on the respondent's opinions and believes on a subject so clearly effected by personnel opinions, the answers given reflects our respondents' view of women leaders rather than the true value of them.

5.3.2 VAWLIC

The VAWLIC method is mainly built on financial numbers, but one estimation has been done by Lundén-Hjält; since she is the human resource manager and the author's main contact. Therefore this calculation is strongly effected by her. A more accurate calculation would have been done if this estimation was made by all managers in Caran. The estimation concerns the difference between value-creation of women leaders and the average employee. One way of eliminating this estimation is to make no difference between employees. This though is most likely misleading since not all employees adds the same vale. The method is affected by the wages and salaries, higher wage and salary leads to a lower

efficiency number. Hopefully a person with higher wage and salary adds more value to the organizations. This will not be taken into account if no estimation of the value added per employee was made. Therefore the authors decided to use the estimation in the calculations.

When doing the estimation Lundén-Hjält argued that there where no difference in value added between men and women leaders. This is a contribution against the other answers given saying that women leaders will benefit Caran's financial value. This contribution should be considered when evaluations of the efficiency indicators are made.

As argued in chapter three women tend to have lower salaries and wages than men (Padavic & Reskin, 2002). If men and women leaders add equal value to an organization but the women are paid less, the value added per Swedish krona automatically gets higher for the women leaders. It does not say that women are better at creating value, only that the value added per Swedish krona spent on women leaders is higher since they get paid less. This could be one aspect to why women leaders benefit an organization's financial profitability. If they are as competent as men and add the same amount of value to the organization but get less paid they automatically benefit the organization's financial value. Any resource that requires a lower investment cost than other resources but create the same amount of value benefit the financial performance positively.

The average women leader in Caran has lower salary and wage than the average men leader. Thereby it is not said that Caran is discriminating their women leaders, the conditions in Caran are not investigated. Numbers of years within the organization most likely affects the wage and salary, so does the different work tasks and level of responsibility. Since Caran is active within a men dominated market it is likely that the men leaders have more experience and have worked in the organization for a longer period of time than the women leaders, which can explain the wage difference. But still, if they add the same amount value, Caran is making a good investment in the women leaders since they cost less than the men. And due to the calculations in the VAWLIC method women leaders create more profit than the men leaders because of their lower wages.

Even though some conditions in this method affect the reliability and validity, the authors argue that this is a method reflecting the true situation in Caran, but they strongly argue that this is an estimation, not an accurate calculation.

6. CONCLUSIONS

This is the thesis' last chapter and the conclusions and results of the investigation are presented. First the author's thoughts about solving a problem are explained. Then the true story about Caran and its women leaders is told. Finally the results are presented, answering the three questions asked in the first chapter in this thesis. To round up, suggestions for further research areas connected to this subject are presented.

6.1 TO SOLVE A PROBLEM

After having studied a small part of a big area the authors realized that their knowledge contribution can be seen as small in the big context. But still it is a contribution along the way to greater knowledge and understanding about intellectual capital, women leaders, and profitability, in particular for the case organization Caran.

Kuhn (1962) talks about research and claims that it has an evolutionary progress but he argues that the progress made, can not be seen as constant even if it constantly solves problems. Development happens through revolutionary changes that break patterns within a research area and are replaced by new patterns. Normal science is not about always trying to find new theories or solutions but to slowly try to solve a problem, which is puzzle solving, on the way to the large revolutionary change (Kuhn, 1962).

6.2 THE STORY ABOUT CARAN AND ITS WOMEN LEADERS

In the beginning of 1980 an industry design and product development company was created: Caran. They developed and became a large consultant firm mainly located in the southern and middle parts of Sweden. In 2007 Caran had 1200 employees, compared to 885 employees in 2005, and was experiencing great profit but still they were not satisfied. In order to increase the profit they started a recruitment campaign searching for new competent women leaders.

In 2007 Caran only had three women leaders in top positions but eight men top leaders. They had a strong belief that if they managed to recruit more women leaders they would gain more competitive advantages and make financial profit. This was due to two main reasons. The first reason was the diversity more women leaders would create. They believed that mixed groups would make it more fun to work, create dynamics, and bring new ways of thinking and thereby add value. The second reason concerned that by acknowledging women leaders, Caran would get a larger selection group to choose from than if only men were considered. Thereby it would be easier to find the most suitable person for the job.

In order to find out the true story about Caran and their women leaders the authors of this thesis tried to calculate the value of Caran's women leaders. This was first made using theories from Roos et al's (2005) IC index, this became a theory the authors chose to call WL-index. The calculations showed that 62 695 713 SEK was brought to the company by the women leaders. Using logic the authors quickly realized that this was not an accurate figure. That would mean that Caran's women leaders, 0.25 percent of all employees, would create 11 percent of the Caran's value; an unreasonable figure. The method was based on valuations from Caran's employees. These valuations were strongly effected by the authors of this thesis since they identified the different resources to be valued. The authors of this thesis were effected by the theories used which is why they also effected the valuation. During the valuation process there was a strong focus on women leaders, leading to the other areas that were forgotten, which was why the value added calculated is misleading. The answers given reflected the respondents' view of women leaders rather than the true value of them. In order to get a rather close estimation it is important that the metrics measured show the true situation in Caran and don't get affected by external factors.

The other method used is based on Pulic's (2004) VAIC method. The method, WAWLIC= value added women leaders intellectual coefficient, estimates the efficiency of women leaders. This thesis do not show the value added by women in Swedish kronor, instead an efficiency number is created to be compared to the men leaders or the WAWLIC in other companies. A higher efficiency number indicates that more value has been added. In the calculations, one estimation from a person within Caran was made saying that the management added 25 per cent more value to Caran than the average employee but that there was no difference between genders, making the method an estimation rather than a calculation. The calculation showed that the efficiency of Caran's women leaders was 4.34 compared to the men leaders' efficiency 3.85. This though is due to the fact that women leaders in general have lower wages and salaries than the men leaders in Caran. It does not say that women leaders are better at creating value, only that the value added by the women leaders are higher since they cost less than the men leaders. A resource that requires lower investments but add just as much value as a more expensive investment automatically benefit the financial value in an organization. This can also be one of the reasons why some earlier research show that women leaders create profitability.

6.3 RESULTS

- *Are the women leaders in Caran creating an increased profitability?*

In Caran they have a strong belief that women leaders would affect the financial profitability positively. At the moment Caran has three women leaders, when asking our respondents if they create more value than the men leaders the answer is no. The results though show that the women leaders add more value than the men leaders. The VAWLIC, value added women leaders intellectual capital, was 4.34 compared to the VAMLIC, value added men leaders intellectual capital, 3.85. Thereby, it is not say that the women leaders are better at creating value, the figures indicate that women add more value due to their lower wages.

Women leaders in Caran create financial profitability due to their lower wages.

- *If that is the case: is it possible to calculate that value?*

Since women leaders are an intangible asset is very difficult to calculate its exact value. The authors believe that estimations can be made, but not exact calculations since individual believes and opinions always are a part of the calculations. When trying to estimate the value of women leaders in Swedish kronor one has to make sure that the different resources to be measured and valued are reflecting the true situation in the organization. If that is not the case, as in the WL-index method in this thesis, no accurate calculations can be done. Instead of measuring the value in Swedish kronor, a women leaders' index can be used and compared to other groups within the organization or to other organizations. This index though is not fully made without subjective estimations from individuals, which is why it is only an estimation.

Only an estimation has been done, not exact calculations.

- *If that is possible, how can it be made?*

In this thesis two measurement systems have been used and evaluated. The first one, WL- index, can not be used in order to find an accurate estimation of the value of Caran's women leaders. If it is to be used other conditions than the one in this thesis it might show a more accurate result. The second one is based on Caran's annual report which is why it is more accurate. This index does not show how much value is created in Swedish kronor, but gives an efficiency number that can be compared to other groups within the organization or to other organizations.

If using the WL-index, one must make sure that the conditions are accurate, something that the authors of this thesis did not succeed with.

The VAWLIC provides an efficiency number that can be used for comparison.

6.3.1 Contribution to the theoretical field

The author's contribution to the theoretical field women leaders and profitability is presented below.

Value creation from a gender perspective

	Main Focus	Theory	Conclusions
Shrader et al, 1997	Management & Board diversity	Financial ratios	Negative relation between the percentage of women board members and performance.
Shrader et al, 1997	Management & Board diversity	Financial ratios	Positive relation between the percentage of women managers and performance.
The Kingsmill Review, 2001	Women leaders	Profitability	Great savings were made when starting to promote women into leaders.
Catalyst, 2004	Women leaders	Financial ratios	Positive correlation between shareholder value, ROE and women leaders.
Oxelheim et al, 2006	Corporate board diversity	Diversity theories & financial ratios	No correlation between the percentage of women board members and profitability.
Downey et al, 2006	Gender	Transformational leadership	Women often adapt the transformational leadership, which affects followers. This can lead to increased efficiency.
Women to the top, 2007	Women leaders	Management & diversity theories	Women leaders create financial profit in organizations.
Library House, 2007	Women leaders	Profitability	Women have difficulties reaching the top in organizations.
Nilsson Tervahauta & Lundquist, 2007	Women leaders	Intellectual capital	Women leaders create financial profitability in Caran due to their lower wages.

Authors' contribution with previous research and their outcome. Table 6.1

6.4 FURTHER RESEARCH

To measure the value of intangible resources such as women leaders is not easy. This is clearly shown in this thesis and its results. When using non monetary IC measurement methods such as the IC and WL index a number of conditions have to be taken into consideration. This was something the authors of this thesis did not succeed with. Their suggestion is that calculations are made again, according to the conditions explained in chapter five. This requires a close work with a chosen organization and a lot of time.

Value creation from a gender perspective

Earlier studies regarding women leaders and profitability in regards to the correlation between the percentage of women leaders and financial performance show different outcomes. It is not possible to draw any conclusions regarding one particular organization by using this method. In this study we have tried to calculate the effect of women leaders in one particular organization, Caran. But since this is only made in one organization no generalizing conclusions regarding women leaders and financial performance can be made. Therefore the authors suggest that calculations on several organizations' VAWLIC are made so generalizing conclusions can be made regarding women leaders and profitability.

The authors also suggest further research concerning the relation between wages and women leaders creating more value in organizations. The VAWLIC measurements indicate that the sum of the value created by women leaders is due to their low wages. But when reading literature and earlier research this is not mentioned as an argument to why women leaders lead to increased profitability which is why we suggest this area to be further investigated.

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Charlotta Uttersson, Division manager Caran

Value creation from a gender perspective

Thomas Andréén, Financial manager Caran

Professor Göran Roos

APPENDIX I

ÅRSREDOVISNING

2005-01-01 - 2005-12-31

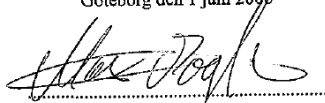
för

WM-data Caran AB

Org nr 556256-1562

Undertecknad styrelseledamot intygar härmed att en med denna avskrift likalydande balans- och resultaträkning fastställdes på ordinarie bolagsstämma den 31 maj 2006. Stämman beslöt tillika godkänna styrelsens förslag till vinstdisposition.

Göteborg den 1 juni 2006



6276.163.001

ÅRSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

Styrelsen och verkställande direktören för WM-data Caran AB får härmed avge årsredovisning för räkenskapsåret 1.1 - 31.12 2005.

FÖRVALTNINGSBERÄTTELSE

Ägarförhållanden

Bolaget är ett helägt dotterbolag till WM-data AB (publ), org.nr 556124-5233.

Information om verksamheten

Bolagets verksamhet består i att bedriva design- och produktutvecklingsuppdrag på konsultbasis främst mot tillverkande industri. Tjänsterna består av konceptutveckling, design, modell- och prototyp tillverkning, verksamhetsutveckling inom produktframtagningsprocessen samt övrig produktutveckling och teknisk konsultverksamhet.

Vårt erbjudande om kompletta utvecklingslösningar - Total Design Engineering - är mycket effektivt när det gäller att behålla lönsamheten i komplexa projekt.

Verksamheten bedrivs i landets södra och mellersta regioner och Caran har kontor på 10-talet orter.

Väsentliga händelser under räkenskapsåret och efter dess utgång

2005 präglades av en fortsatt ökad efterfrågan på företagets utbud och tjänster.

Efterfrågan på företagets tjänster mot Automotivesektorn har varit hög under hela året och Caran tilldelades i april det prestigefyllda leverantörspriset Volvo Cars Award of Excellence.

Inom industrisegmentet stärktes efterfrågan under hela året för att ligga på en förhållandevis hög nivå i slutet av verksamhetsåret.

Den 17 mars bildade WM-data Caran ett dotterbolag i Indien, Bangalore. Vi bygger upp verksamheten för att bibehålla och förstärka vår relation till fordons- och flygindustrin. Men vi gör det också för att långsiktigt etablera oss på en av världens mest spännande och expansiva marknader.

Medarbetare

Vid årets slut uppgick antalet medarbetare till 885 st. Under växte Caran organiskt med 121 medarbetare. Andelen kvinnor uppgår till 21 % vilket är en ökning från 2004 då andelen var 18,5 %.

Sida 1 av 12

6276.163.002

ÅRSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

Framtida utveckling

WM-data Caran bedömer att marknaden 2006 kommer att fortsätta växa. Inom Automotive kommer efterfrågan att ligga på en hög nivå medan efterfrågan inom Industrisektorn kommer att växa relativt mer än inom Automotivesegementet.

Bolagets mål under 2006 är att fortsätta ta marknadsandelar i både Sverige och internationellt. Bolaget kommer att fortsätta sin satsning på nischkompetenser, såsom hybridteknologi och ergonomi.

Alla belopp redovisas om inte annat anges i tusentals kronor (tkr)

Resultat och ställning

	2005	2004	2003	2002
Nettoomsättning	821 985	681 418	635 252	333 334
Resultat efter finansiella poster	72 024	8 033	3 469	-54 434
Balansomslutning	249 686	225 417	202 831	251 164
Soliditet	18,4%	9,1%	12,6%	15,3%
Medelantal anställda	885	764	761	441

Vinstdisposition

Styrelsen och verkställande direktören föreslår att vinsten enligt balansräkningen 27 337 614 kr, utgörande årets vinst 23 514 124 kr med tillägg av balanserad vinst 3 823 490 kr, balanseras i ny räkning.

Sida 2 av 12

6276.163.003

ÅRSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

RESULTATRÄKNING	NOT	2005-01-01 2005-12-31	2004-01-01 2004-12-31
Nettoomsättning		821 985	681 418
Rörelsens kostnader			
Övriga externa kostnader	3, 5	-266 541	-244 458
Medarbetarkostnader	1, 2	-477 152	-422 368
Avskrivningar enligt plan	6, 7	-6 445	-6 865
Rörelseresultat före finansiella poster		71 847	7 727
Finansiella intäkter och kostnader			
Ränteintäkter och liknande resultatposter		504	466
Räntekostnader och liknande resultatposter		-327	-160
Resultat efter finansiella poster		72 024	8 033
Bokslutsdispositioner	4	-38 268	-11 264
Resultat före skatter		33 756	-3 231
Skatter		-10 242	-72
ÅRETS RESULTAT		23 514	-3 303

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ÅRSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

BALANSRÄKNING (tkr)	NOT	2005-12-31	2004-12-31
Tillgångar			
Anläggningstillgångar			
Immateriella anläggningstillgångar			
Goodwill	6	2 129	2 684
Materiella anläggningstillgångar			
Byggnader och Mark	7	1 390	1 476
Maskiner och inventarier		17 808	17 972
Finansiella anläggningstillgångar			
Övriga aktier och andelar	8	167	189
Summa anläggningstillgångar		21 494	22 321
Omsättningstillgångar			
Varulager		718	507
Kortfristiga fordringar			
Kundfordringar		198 836	141 827
Fordringar hos koncernföretag		360	10 835
Skattefordringar		6 243	5 669
Upparbetat men ej fakturerad intäkt	9	14 881	32 882
Övriga fordringar		471	1 069
Förutbetalda kostnader och upplupna intäkter	10	6 661	10 293
Summa kortfristiga fordringar		227 452	202 575
Kassa och bank		22	14
Summa omsättningstillgångar		228 192	203 096
Summa tillgångar		249 686	225 417

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ARSREDOVISNING 2005

WM-data Caran AB, org nr 566256-1562

Eget kapital och skulder	NOT	2005-12-31	2004-12-31
Eget kapital	11		
Bundet eget kapital			
Aktiekapital 50 000 000 aktier		5 000	5 000
Reservfond		1 000	1 000
Överkursfond		7 789	7 789
Summa bundet eget kapital		13 789	13 789
Fritt eget kapital			
Balanserad vinst		3 823	7 126
Årets resultat		23 514	-3 303
Summa fritt eget kapital		27 337	3 823
Summa eget kapital		41 126	17 612
Obeskattade reserver	12	6 769	3 933
Avsättningar			
Övriga avsättningar	13	861	629
Summa avsättningar		861	629
Icke räntebärande skulder			
Förskott från kunder		3 171	5 164
Leverantörsskulder		24 569	23 123
Skulder till koncernföretag		61 888	84 598
Upplupna kostnader och förutbetalda intäkter	14	82 491	70 155
Övriga icke räntebärande skulder		28 811	20 203
Summa icke räntebärande skulder		200 930	203 243
Summa eget kapital och skulder		249 686	225 417
Ställda säkerheter	15	2 000	2 000
Ansvarsförbindelse	16	3 000	315

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ÅRSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

Kassaflödesanalys	2005	2004
Den löpande verksamheten		
Årets resultat efter skatt	23 514	-3 303
Justeringar för poster som inte ingår i kassaflödet		
Avskrivningar	6 445	6 865
Förändring obeskattade reserver	2 835	-246
Koncernbidrag	23 924	-9 045
Fusionerat resultat	0	-7
Moderbolagsavgift	<u>1 616</u>	<u>-1 483</u>
Kassaflöde från den löpande verksamheten före förändringar av rörelsekapital	58 334	-7 219
Förändring i rörelsekapital		
Övriga fordringar	-24 088	-57 952
Övriga skulder	<u>-28 620</u>	<u>70 127</u>
Kassaflöde från den löpande verksamheten	5 626	4 956
Investeringsverksamheten		
Nettoinvesteringar av materiella anläggningstillgångar	-5 640	-5 056
Nettoinvesteringar av finansiella anläggningstillgångar	22	0
Kassaflöde från investeringsverksamheten	-5 618	-5 056
Finansieringsverksamheten		
Kassaflöde från finansieringsverksamheten	0	0
Förändring av likvida medel	8	-100
Likvida medel vid årets början	<u>14</u>	<u>114</u>
Likvida medel vid årets slut	22	14
Förändring likvida medel inkl förändring checkräkningsskuld moderbolag	35 727	-64 937

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ÅRSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

NOTFÖRTECKNING

Redovisningsprinciper

Tillämpade redovisningsprinciper överensstämmer med årsredovisningslagen och Bokföringsnämndens allmänna råd om inget annat framgår av upplysningarna nedan.

Intäktsföring av nedlagda timmar på pågående projekt, löpande räkning, sker i den period som nedlagda timmar faktureras. Intäktsföring av nedlagda timmar på pågående projekt, fast pris, sker genom successiv vinstavräkning enligt färdigställandegraden på balansdag. Erforderlig reservering har skett av projekten.

Fordringar

Fordringar har upptagits till belopp varmed de förväntas inflyta.

Kundfordringar

Avsättning för förlustrisker sker efter individuell prövning.

Varulager

Varulagret värderas enligt lägsta värdets princip.

Ägarförhållanden

WM-data Caran AB är ett helägt dotterbolag till WM-data AB (556124-5233) säte: Stockholm.

Inköp och försäljning mellan koncernföretag

Av årets totala kostnader för inköp respektive försäljning har 25% (f.å 33%) av inköpen kommit från och 4% (f.å 3%) av försäljningen skett till andra företag inom koncernen.

Not 1 Medarbetarkostnader

	2005	2004
Löner och andra ersättningar*	-314 237	-278 668
Sociala avgifter	-111 393	-98 593
Pensionskostnad**	-32 464	-31 024

* av löner och andra ersättningar avser 2 177 tkr (1 923 tkr), VD och styrelse.

** av pensionskostnaderna avser 307 tkr (408 tkr), VD och styrelse.

Uppsägningstiden för VD är sex månader från bolagets och VD:s sida. Vid uppsägning från bolagets sida utgår en avgångsersättning med ytterligare tolv månader. Om VD under denna period påbörjar ny tjänst upphör rätten till kvarvarande avgångsersättning.

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ÅRSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

Medelantal medarbetare

	2005	2004
Antal män	700	622
Antal kvinnor	185	142
Totalt antal anställda	885	764

Not 2 Sjukfrånvaro

- Totala sjukfrånvaron i % av tot. ord. arbetstid.
- Andel långtidssjukfrånvaro (sammanhängande tid av 60 dagar eller mer)
- Sjukfrånvaron för kvinnor respektive män (ej om antalet i gruppen är högst 10)
- Åldersfördelning < 30 år, 30 - 49 år och > 49 år (ej om antalet i gruppen är högst 10)

	Sjukfrånvaro timmar	Total ord.arbetstid timmar	Sjukfrånvaro procent
Samtliga anställda	40 093	1 788 648	2,2%
Långtidssjukfrånvaro	132		0,3%
Kvinnor	11 272	353 350	3,2%
Män	28 849	1 435 298	2,0%
29 år och yngre	5 899	355 361	1,7%
30 - 49 år	28 402	887 562	3,2%
Äldre än 50 år	5 792	545 725	1,1%
Könsfördelning i Bolagets styrelse	2005		2004
Kvinnor	0	0,0%	0
Män	4	100,0%	4
Könsfördelning i Bolagets ledningsgrupp			
Kvinnor	3	27,3%	3
Män	8	72,7%	8

Not 3 Upplysning om revisorers arvode**Arvode och kostnadsersättning****Ernst & Young AB**

Arvode för utförd revision faktureras WM-data AB och ingår i Management Fee.

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ARSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

Not 4 Bokslutsdispositioner	2005	2004
Skillnad mellan bokförd avskrivning och avskr. enligt plan	-2 835	245
Lämnat koncernbidrag	-35 433	-11 509
	-38 268	-11 264

Not 5 Leasingkostnader

Bolaget disponerar genom operationell leasingavtal inventarier, datorer, lokaler mm.

Framtida betalningsåtaganden:	Lokaler	M & I
2006	-13 800	-1 400
2007	-14 200	-1 400
2008	-14 600	-1 400
2009	-15 000	-1 400
2010 och senare	-15 400	-1 400
Årets kostnader för hyrda tillgångar uppgick till:	-13 863	-1 127

Not 6 Immateriella anläggningstillgångar**Goodwill**

Avskrivning har skett med 10% på tillgångarnas ursprungliga anskaffningsvärde.

	2005	2004
Ingående anskaffningsvärde	5 553	5 553
Årets inköp	0	0
Årets försäljningar/utrangeringar	0	0
Utgående ackumulerat anskaffningsvärde	5 553	5 553
Ingående planerliga avskrivningar	-2 869	-2 314
Försäljningar/utrangeringar	0	0
Årets planerliga avskrivningar	-555	-555
Utgående ackumulerade avskrivningar	-3 424	-2 869
Utgående planerligt restvärde	2 129	2 684

ARSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

Not 7 Materiella anläggningstillgångar

Byggnader och Mark

Avskrivning har skett med 3% på byggnadens kontorsdel, 4% på industridel och 5% på markanläggning.

	2005	2004
Ingående anskaffningsvärde	2 505	2 505
Årets inköp	0	0
Årets försäljningar/utrangeringar	0	0
Utgående ackumulerat anskaffningsvärde	2 505	2 505
Ingående planenliga avskrivningar	-1 029	-944
Försäljningar/utrangeringar	0	0
Årets planenliga avskrivningar	-86	-85
Utgående ackumulerade avskrivningar	-1 115	-1 029
Utgående planenligt restvärde	1 390	1 476
Bokfört värde fastighet	1 390	1 476
Taxeringsvärde fastighet	789	789

Maskiner och Inventarier

Avskrivning har skett med 10-33% på tillgångarnas ursprungliga anskaffningsvärde.
Datorer med varaktighet mindre än 3 år kostnadsföres löpande.

	2005	2004
Ingående anskaffningsvärde	37 416	32 473
Årets inköp	5 774	5 079
Årets försäljningar/utrangeringar	-25 255	-136
Utgående ackumulerat anskaffningsvärde	17 935	37 416
Ingående planenliga avskrivningar	-19 444	-13 318
Försäljningar/utrangeringar	25 121	113
Årets planenliga avskrivningar	-5 804	-6 239
Utgående ackumulerade avskrivningar	-127	-19 444
Utgående planenligt restvärde	17 808	17 972

ÅRSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

Not 8 Övriga aktier och andelar

	2005	2004
Ingående anskaffningsvärde	189	189
Inköp	0	0
Försäljning	-22	0
Utgående ack anskaffningsvärden	167	189

Not 9 Upparbetat men ej fakturerad intäkt

	2005	2004
Pågående arbete	14 881	32 882
	14 881	32 882

Not 10 Förutbetalda kostnader och upplupna intäkter

	2005	2004
Förutbetalda kostnader	6 661	10 659
Upplupna intäkter	0	-366
	6 661	10 293

Not 11 Eget kapital

	Aktie- kapital	Reserv- fond	Överkurs- fond	Balanserad vinst	Årets resultat
Ingående balans	5 000	1 000	7 789	7 126	-3 303
Enligt bolagsstämmobeslut				-3 303	3 303
Årets resultat					23 514
Utgående balans	5 000	1 000	7 789	3 823	23 514

Not 12 Obeskattade reserver

	2005	2004
Skillnad mellan bokförda avskrivningar och enligt plan	6 769	3 933
	6 769	3 933

Not 13 Övriga avsättningar

	2005	2004
Övriga avsättningar	861	629
	861	629

Not 14 Upplupna kostnader och förutbetalda intäkter

	2005	2004
Skuld medarbetarrelaterade kostnader	71 733	61 244
Övriga upplupna kostnader och intäkter	10 758	8 315
Omstruktureringskostnader avseende lokaler, medarbetare	0	596
	82 491	70 155

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ÅRSREDOVISNING 2005

WM-data Caran AB, org nr 556256-1562

Not 15 Ställda säkerheter

	2005	2004
Företagsinteckningar	2 000	2 000
	2 000	2 000

Not 16 Ansvarsförbindelser

	2005	2004
Garantiförbindelse	3 000	315

Not 17 Koncernredovisning

Bolaget har ej upprättat koncernredovisning. Koncernredovisning upprättas av WM-data AB, org.nr 556124-5233, med säte i Stockholm

Göteborg den 31 maj 2006


Mats Rogbent
Verkställande direktör


Thomas Andrén


Rickard Petri


Crister Stjernfelt

Vår revisionsberättelse har avgivits den 31/5 2006


Sven-Arne Gärde
Auktoriserad revisor

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Revisionsberättelse

Till årsstämman i WM-Data Caran AB

Org.nr 556256-1562

Jag har granskat årsredovisningen och bokföringen samt styrelsens och verkställande direktörens förvaltning i WM-Data Caran AB för räkenskapsåret 2005-01-01 - 2005-12-31. Det är styrelsen och verkställande direktören som har ansvaret för räkenskapshandlingarna och förvaltningen och för att årsredovisningslagen tillämpas vid upprättandet av årsredovisningen. Mitt ansvar är att uttala mig om årsredovisningen och förvaltningen på grundval av min revision.

Revisionen har utförts i enlighet med god revisions sed i Sverige. Det innebär att jag planerat och genomfört revisionen för att med hög men inte absolut säkerhet försäkra mig om att årsredovisningen inte innehåller väsentliga felaktigheter. En revision innefattar att granska ett urval av underlagen för belopp och annan information i räkenskapshandlingarna. I en revision ingår också att pröva redovisningsprinciperna och styrelsens och verkställande direktörens tillämpning av dem samt att bedöma de betydelsefulla uppskattningar som styrelsen och verkställande direktören gjort när de upprättat årsredovisningen samt att utvärdera den samlade informationen i årsredovisningen. Som underlag för mitt uttalande om ansvarsfrihet har jag granskat väsentliga beslut, åtgärder och förhållanden i bolaget för att kunna bedöma om någon styrelseledamot eller verkställande direktören är ersättningskyldig mot bolaget. Jag har även granskat om någon styrelseledamot eller verkställande direktören på annat sätt har handlat i strid med aktiebolagslagen, årsredovisningslagen eller bolagsordningen. Jag anser att min revision ger mig rimlig grund för mina uttalanden nedan.

Årsredovisningen har upprättats i enlighet med årsredovisningslagen och ger en rättvisande bild av bolagets resultat och ställning i enlighet med god redovisningssed i Sverige. Förvaltningsberättelsen är förenlig med årsredovisningens övriga delar.

Jag tillstyrker att årsstämman fastställer resultaträkningen och balansräkningen, disponerar vinsten enligt förslaget i förvaltningsberättelsen och beviljar styrelsens ledamöter och verkställande direktören ansvarsfrihet för räkenskapsåret.

Göteborg den 31 maj 2006

Sven-Arne Gårdh
Auktoriserad revisor

Protokoll fört vid ordinarie bolagsstämma med aktieägarna i WM-data Caran AB
org. nr. 556256-1562 den 31 maj 2006.

Närvarande aktieägare:

	Antal aktier	Antal röster
WM-data AB gm Crister Stjernfelt	100%	100%

Närvarande i övrigt:

Rikard Petri
Thomas Andrén
Mats Rogbrant

§ 1 Bolagsstämmans öppnande

Stämman öppnades av Crister Stjernfelt.

§ 2 Val av ordförande vid stämman

Crister Stjernfelt utsågs till ordförande vid stämman. Noterades att Thomas Andrén hade fått i uppdrag att föra protokollet.

§ 3 Godkännande av röstlängden

Stämman godkände den upprättade röstlängden.

§ 4 Godkännande av föredragningslistan

Stämman godkände föredragningslistan.

§ 5 Val av justeringsmän

Stämman utsåg Mats Rogbrant att justera dagens protokoll.

§ 6 Fråga om stämman blivit behörigen sammankallad

Stämman ansåg sig behörigen sammankallad.

§ 7 Framläggande av årsredovisning och revisionsberättelse

Stämman ansåg årsredovisning för 2005 och revisionsberättelsen framlagd i behörig ordning.

§ 8 Fastställande av bolagets resultaträkning, balansräkning samt vinstdisposition

Revisorerna hade tillstyrkt att bolagsstämman fastställer de i årsredovisningen för verksamhetsåret 2005 intagna resultat- och balansräkningarna. Stämman fastställde resultat- och balansräkningarna.

Stämman beslöt i enlighet med verkställande direktörens och styrelsens förslag att balanserade vinstmedel jämte årets vinst skulle disponeras enligt följande:

Balanserad vinst		3 823 tkr.
Årets resultat	23 524 tkr.	27 337 tkr.

Balanseras i ny räkning 27 337 tkr.

Beslutet skulle anses som omedelbart justerat.

Stämman beslöt vidare att bevilja styrelsens ledamöter och verkställande direktör ansvarsfrihet för den tid den framlagda årsredovisningen avsåg.

§ 9 Fastställande av arvode åt styrelsen och arvode åt revisorerna

Stämman beslöt att inget arvode skall utgå till styrelseledamöter. Arvode för utförd revision faktureras moderbolaget WM-data AB.

§ 10 Fastställande av antal styrelseledamöter, styrelsesuppleanter och revisorer

Stämman beslöt att antal styrelseledamöter skulle vara fyra och att inga suppleanter skulle utses. Stämman beslöt vidare att en ordinarie revisor skulle utses.

§ 11 Val av styrelseledamöter och revisorer

Till ordinarie styrelseledamöter för tiden intill nästa ordinarie bolagsstämma valdes:

Thomas Andren	omval
Mats Rogbrant	omval
Christer Stjernfelt	omval
Rikard Petri	omval

Till ordinarie revisorer utsågs:
Sven-Arne Gärd omval

§ 12

Stämmans avslutande

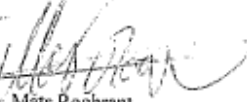
Antecknades att samtliga beslut fattades enhälligt.
Inget övrigt förekom. Stämman avslutades.

Vid protokollet


Thomas André

Justeras:


Crister Stjernfelt
ordförande


Mats Rogbrant

APPENDIX II

Interview template

Caran 14 maj 2007

Are we allowed to use your and the firm's name in our thesis?

Background

Describe your company and the work you and the employees are doing.

Your employees:

How many employees do you have?

How many percent are women?

How big is the share of women in the management?

How big is the share of women compared to other parts of VM-data?

Has it been any changes the past few years? In what direction?

Have women and men different work tasks?

Your costumers

What does your average costumer look like?

Women/men?

Profitability

Financial manager: What is your financial value?

F m: Which kind of measurement and ratios do you use?

F m.: What is your market value?

F m: How do you estimate it?

Are you profitable?

On which grounds?

How profitable are you compared to other parts in the VM-data group?

Has is been any changes in the profitability the last couple of years?

What is this due to?

How big effect has the management on the company's profitability?

Why?

On your homepage you are actively searching for more women leaders. Why ?

Do you think that more women leaders can effect the profitability?

In which direction and why?

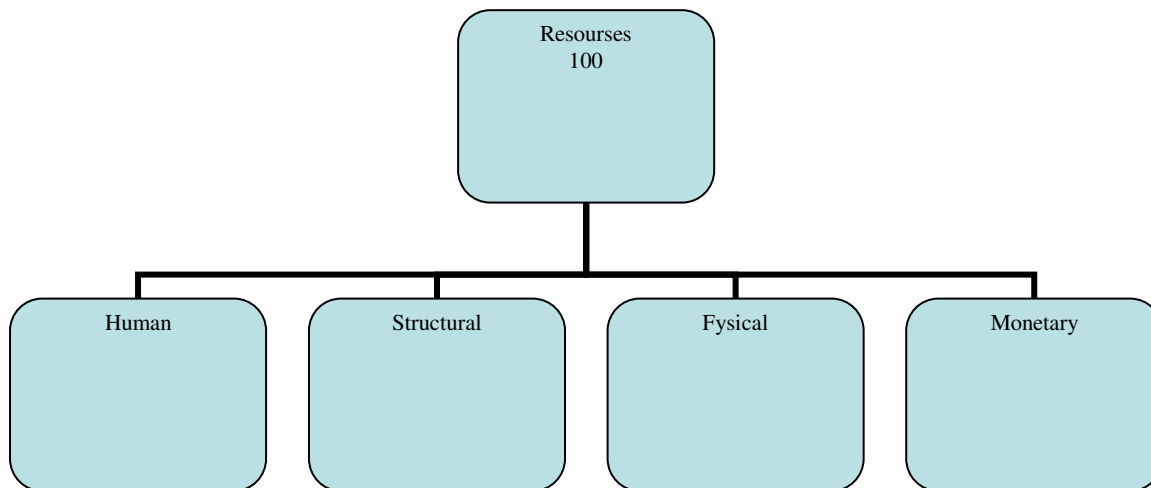
Value creation from a gender perspective

According to your homepage women leaders is a topic that is discussed in the management and board of directors. How important do you think this is? Which is the number one cause to why you would like to have more women in the management?

Resources

Which are your number one resources?
Why?

How would you divide 100 points between different parts of your company?



(Adapted by Roos et al, 1997)

Human capital

Which part, according to you, does the human capital consist of?
Which resources is a part of the human capital?
Would you like to add something in our chart?

Value scheme

To you think that the different parts below are representative?
Would you like to add something?
Which role has your women leaders?
How big percentage of the created value is due to the women?
Divide 100 points between every part.

Competence

How do the women leaders effect the whole organization's competence?

Value creation from a gender perspective

Would the company's competence be different with only male representatives in the management?

How big significance has the women leaders had on the competence?

Attitude

How would you describe your culture? Which values do you want your employees to adapt?

On your homepage you are actively searching for personnel that have the same view of women leaders as you have. How important is this?

How do you think that women leaders can effect the employee's attitude so it becomes similar with yours?

Intellectual agility

What do you think creates new ideas?

What takes of the employees?

How big difference has diversification?

How big difference has diversification between the genders?

In which environment is innovation created in your company?

In which groups?

Structural capital

Which part does you structural capital consists of?

Which recourses are a part of it?

Value scheme

To you think that the different parts below are representative?

Would you like to add something?

Which role has your women leaders?

How big percentage of the created value is due to the women?

Divide 100 points between every part.

Relations

How do you believe you women leaders effect your costumer relationships?

Organization

Do you have a well thought trough recruitment process?

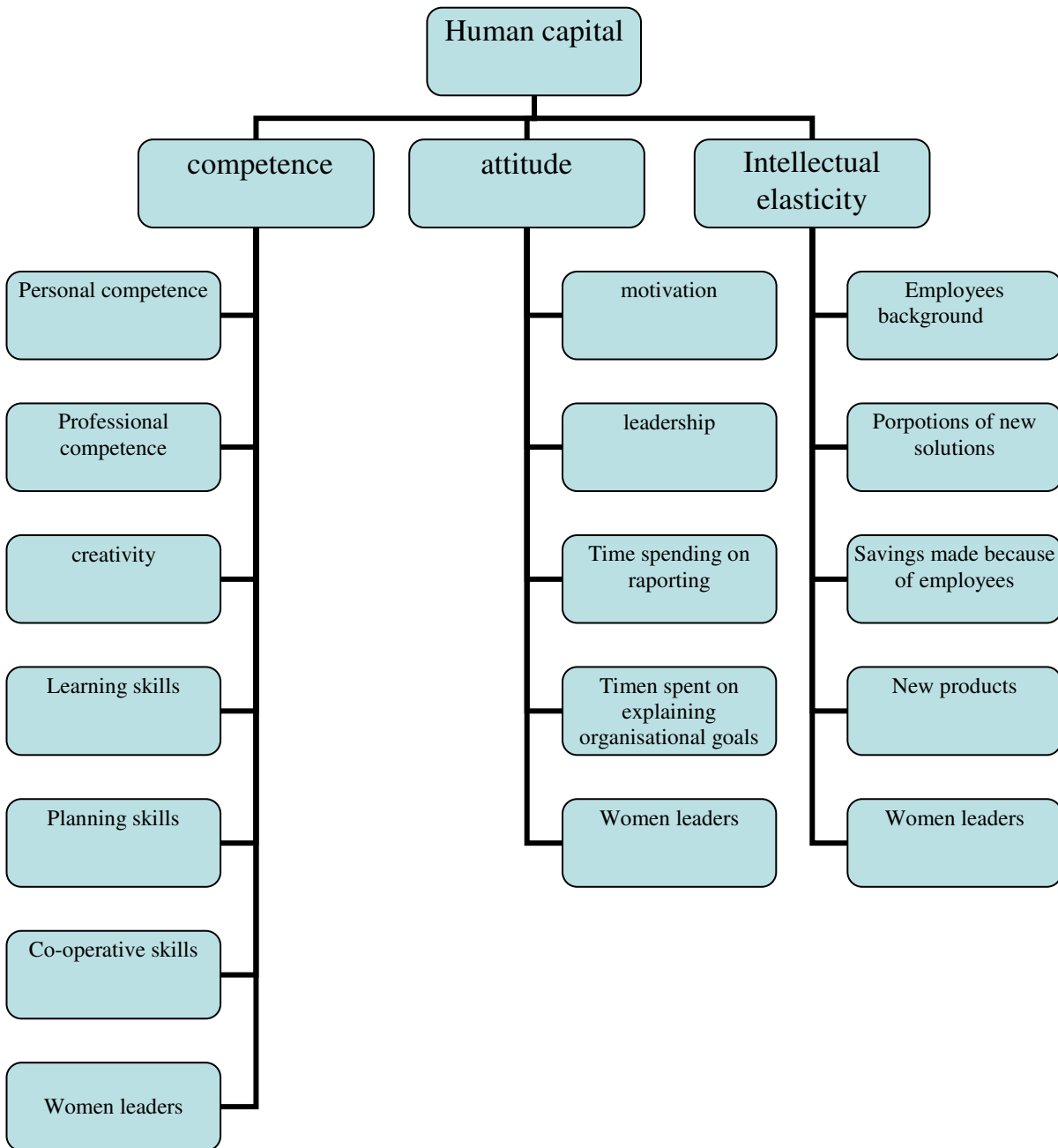
According to your homepage the focus lies in recruiting more women. Is this correct? Why?

Development

How big part of your future value lies within the women?

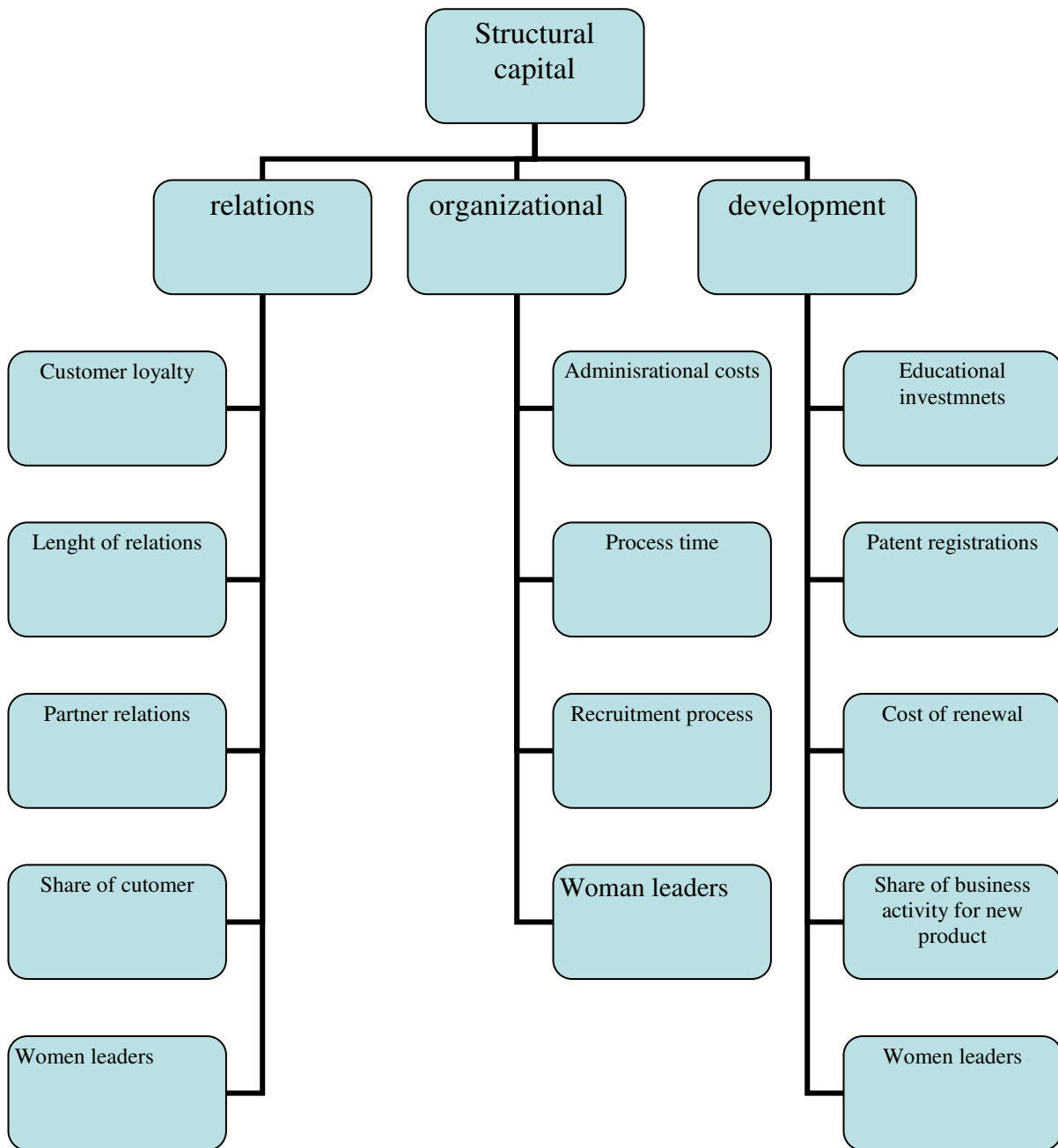
Value creation from a gender perspective

Do you think it will have an effect in the long run?
Why?



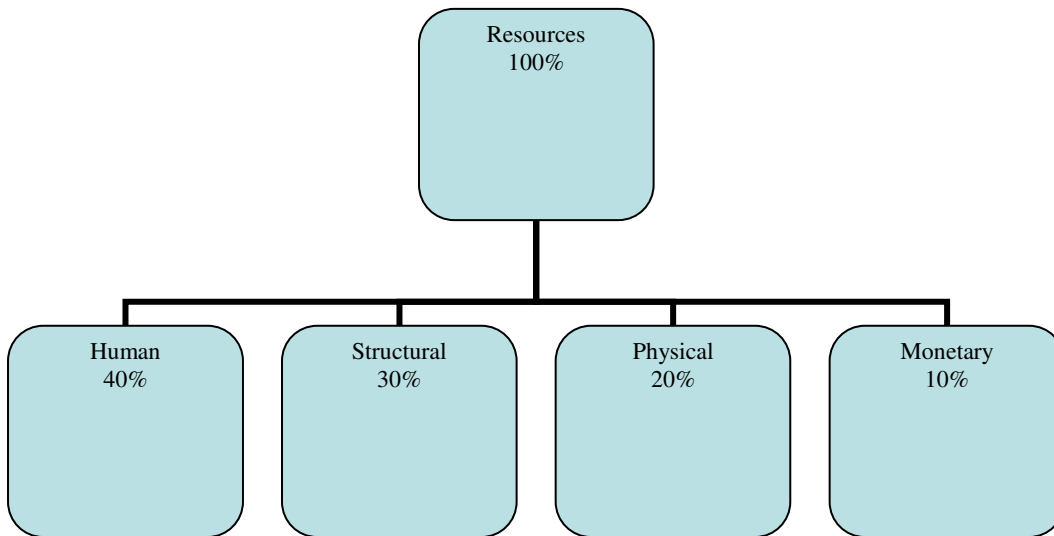
(Adapted by Roos et al, 1997)

Value creation from a gender perspective

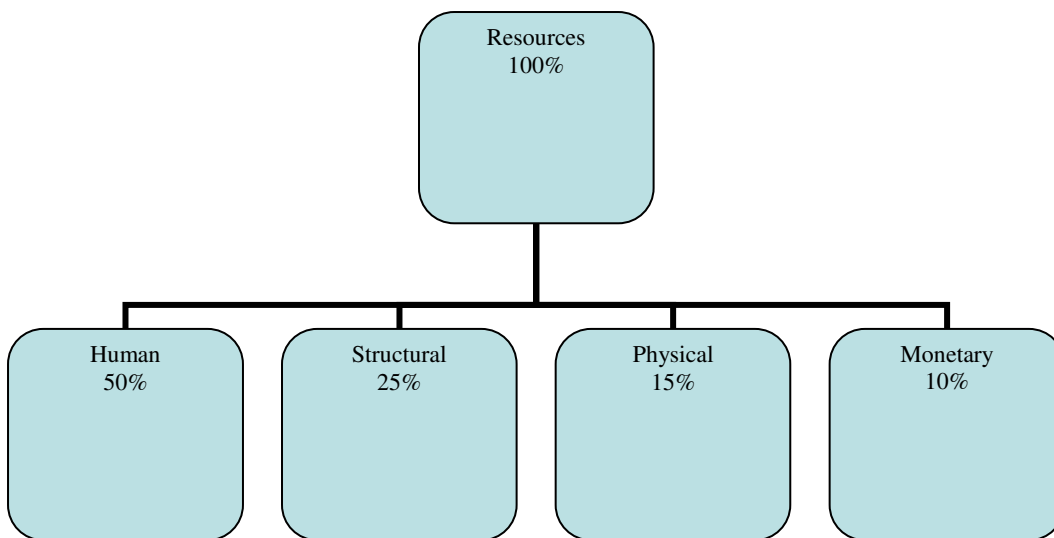


(Adapted by Roos et al, 1997)

APPENDIX III

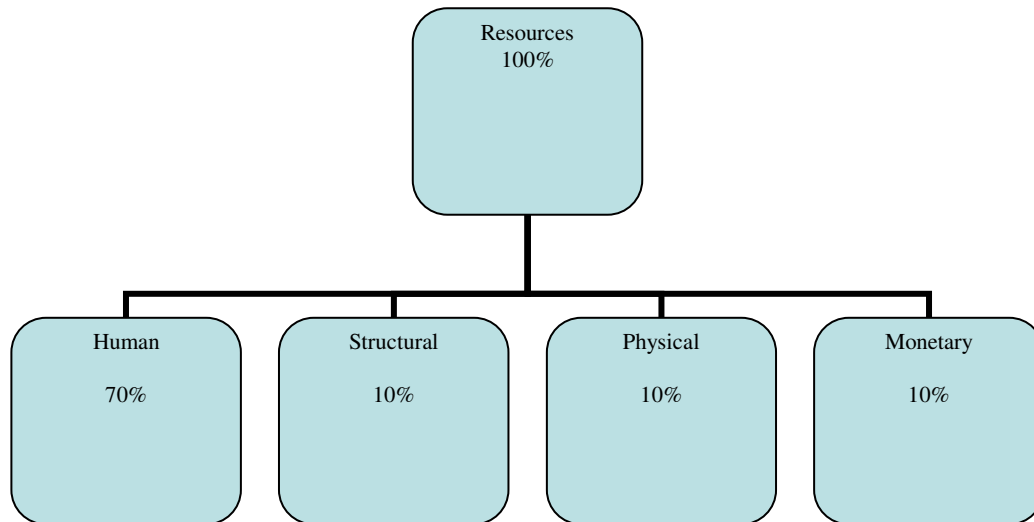


Resources Agneta Lundén-Hjält (Adapted by Roos et al, 1997)

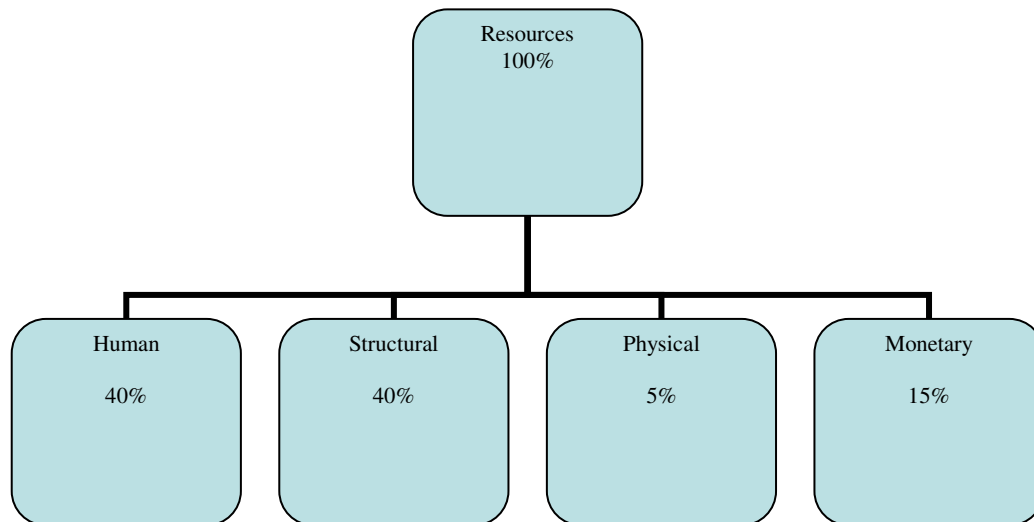


Resources Lennart Andersson (Adapted by Roos et al, 1997)

Value creation from a gender perspective

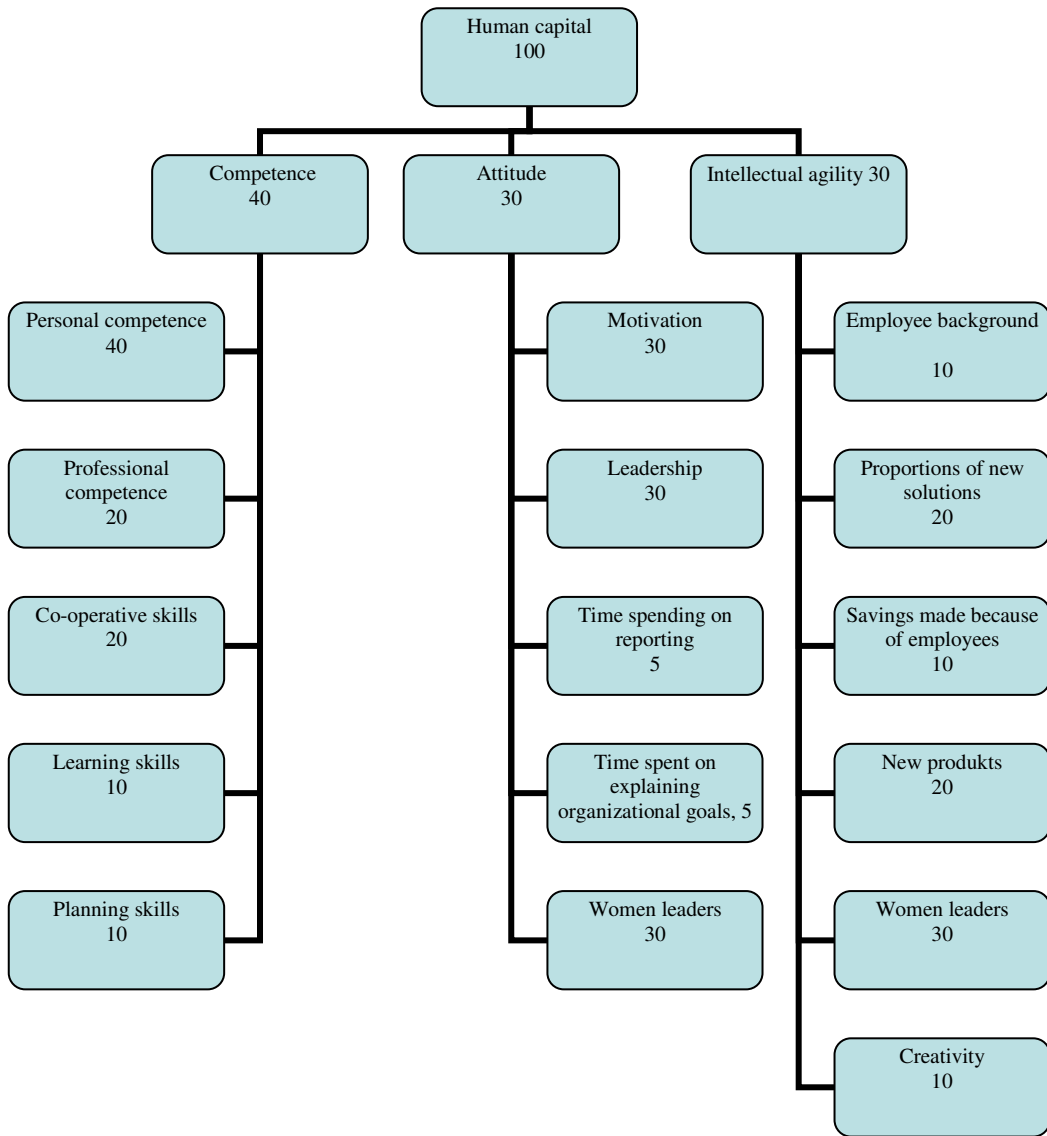


Resources Charlotta Uttersson (Adapted by Roos et al, 1997)



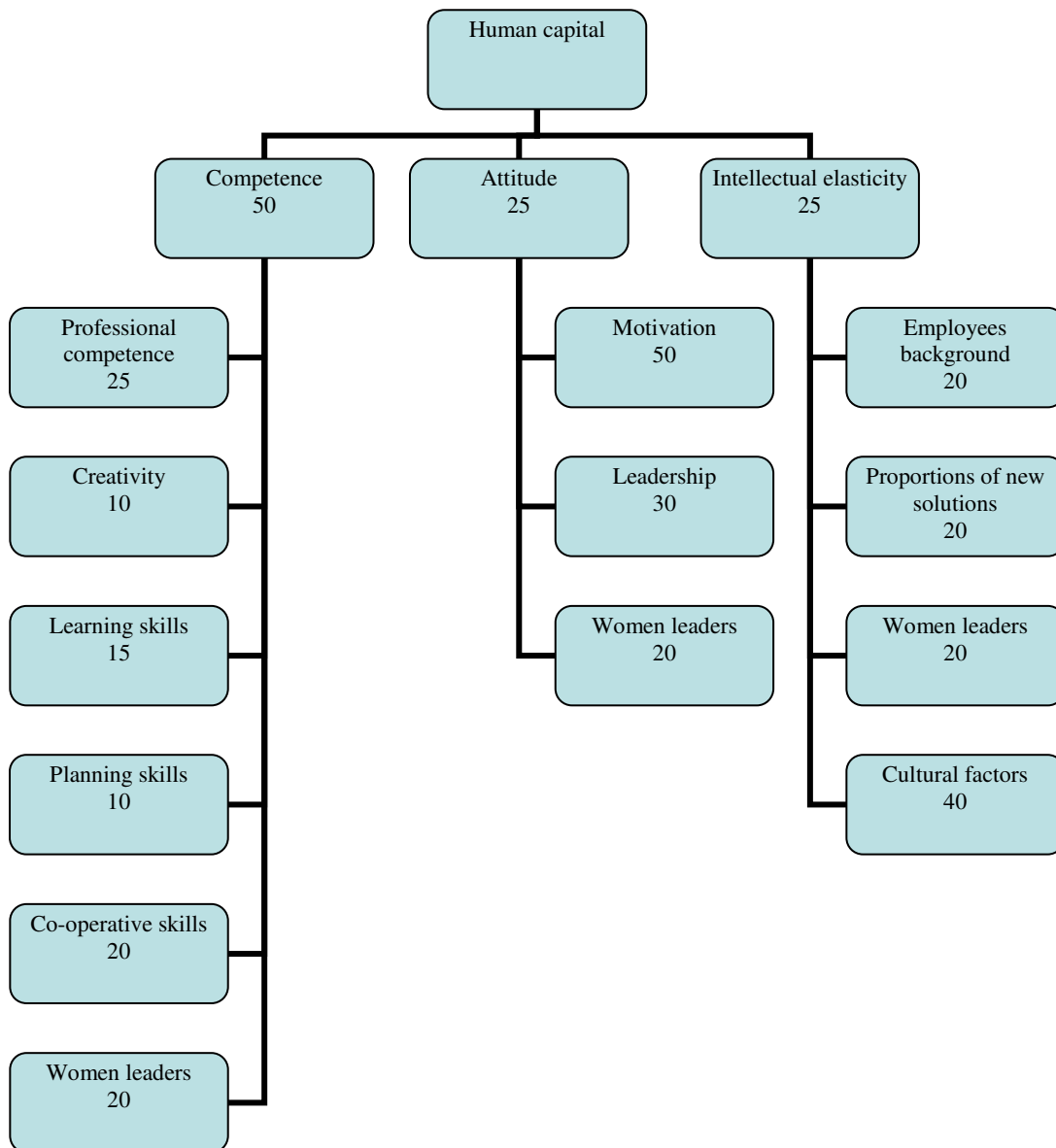
Resources Thomas Andrén (Adapted by Roos et al, 1997)

Value creation from a gender perspective



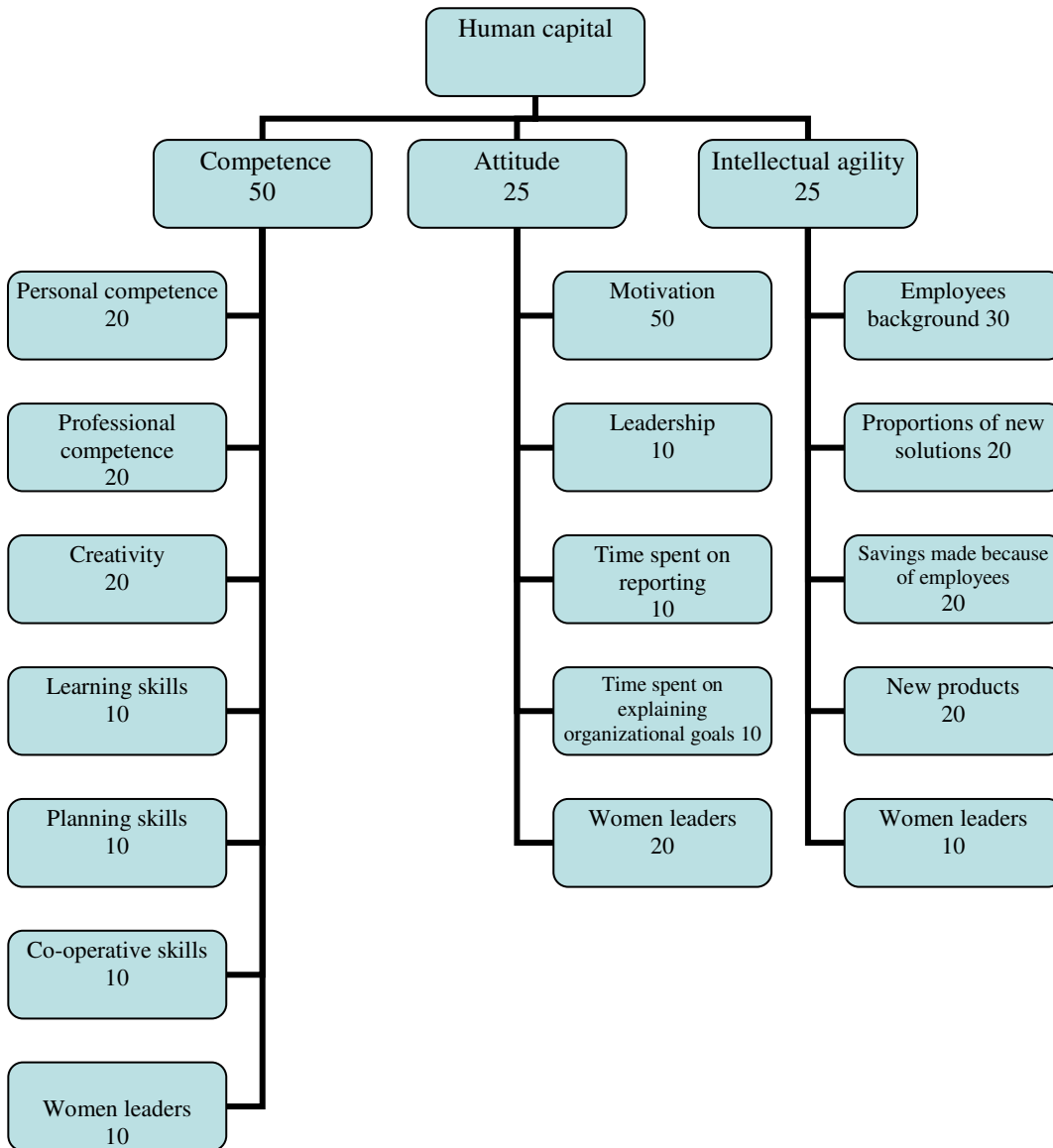
Human Capital Agneta Lundén-Hjält (Adapted by Roos et al, 1997)

Value creation from a gender perspective



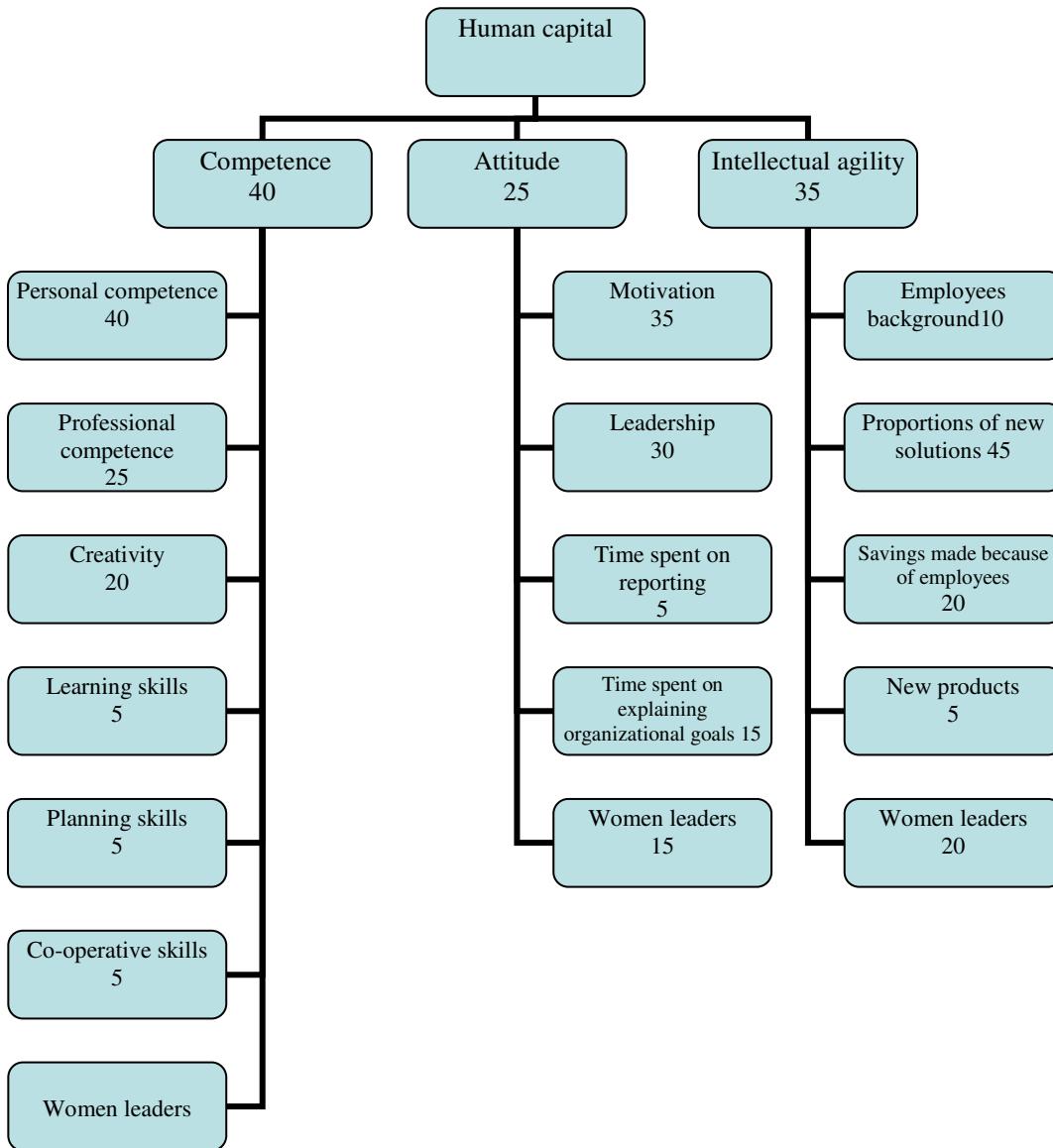
Human capital Lennart Andersson (Adapted by Roos et al, 1997)

Value creation from a gender perspective



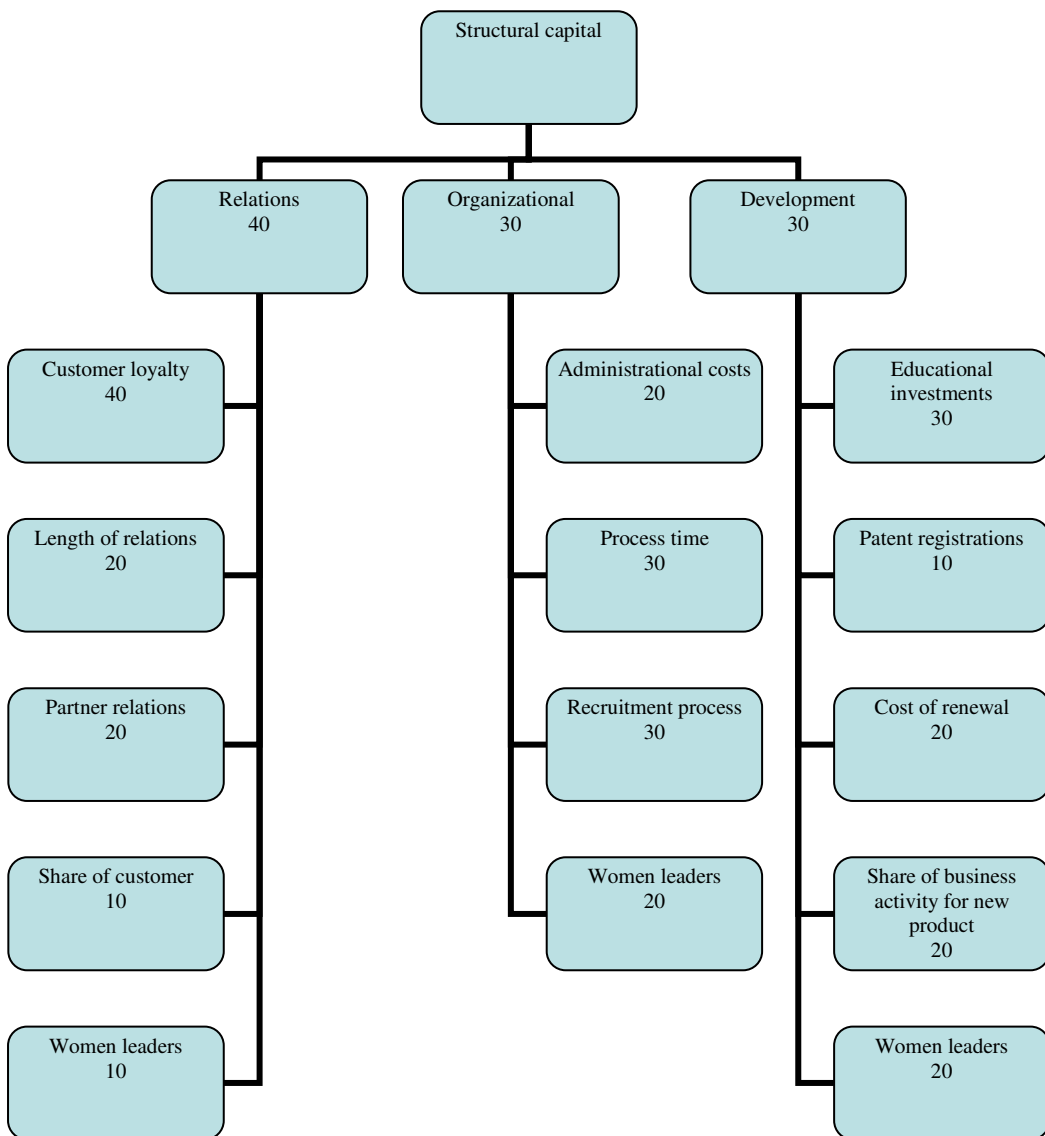
Human capital Charlotta Uttersson (Adapted by Roos et al, 1997)

Value creation from a gender perspective



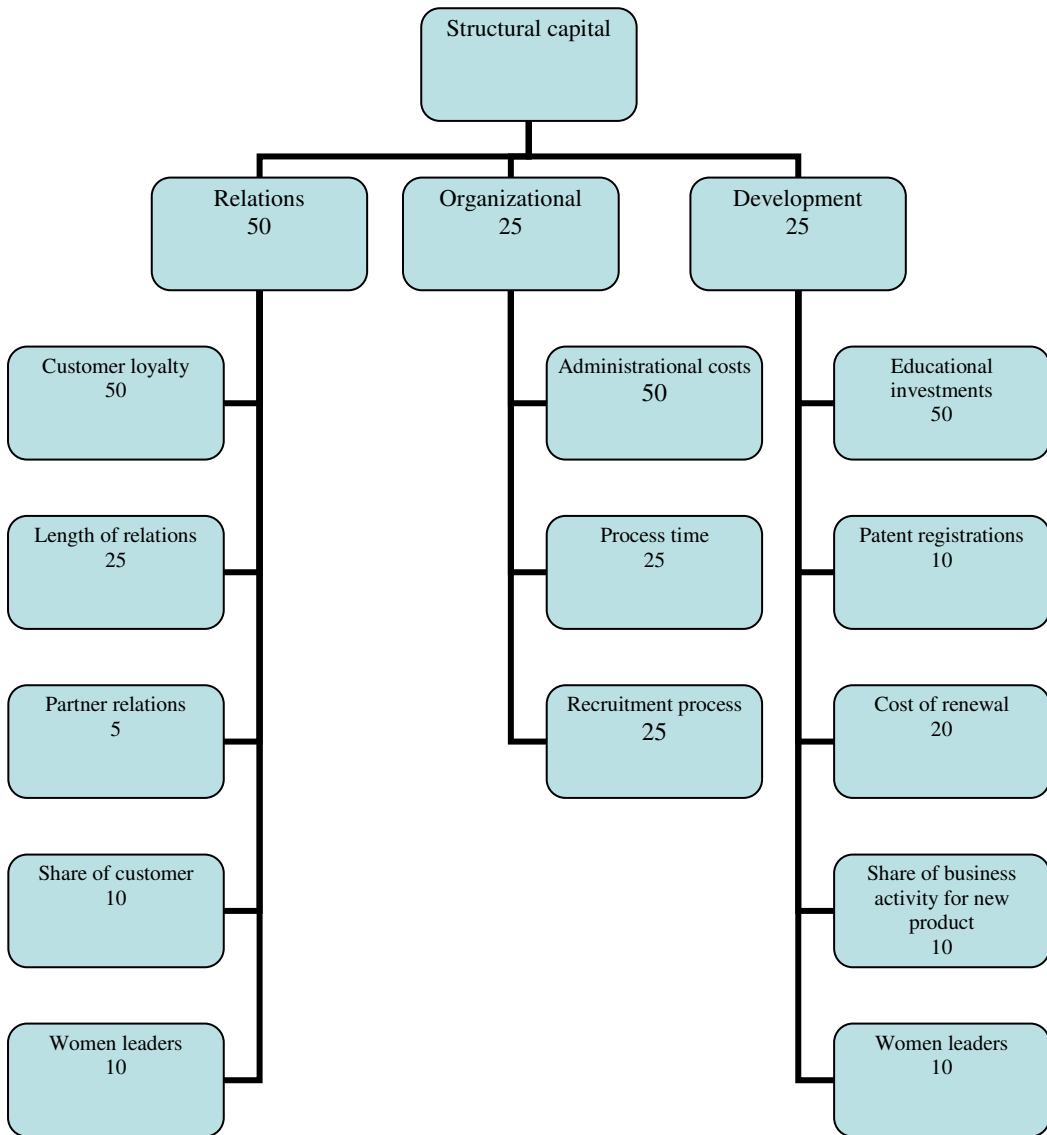
Human capital Thomas Andrén (Adapted by Roos et al, 1997)

Value creation from a gender perspective



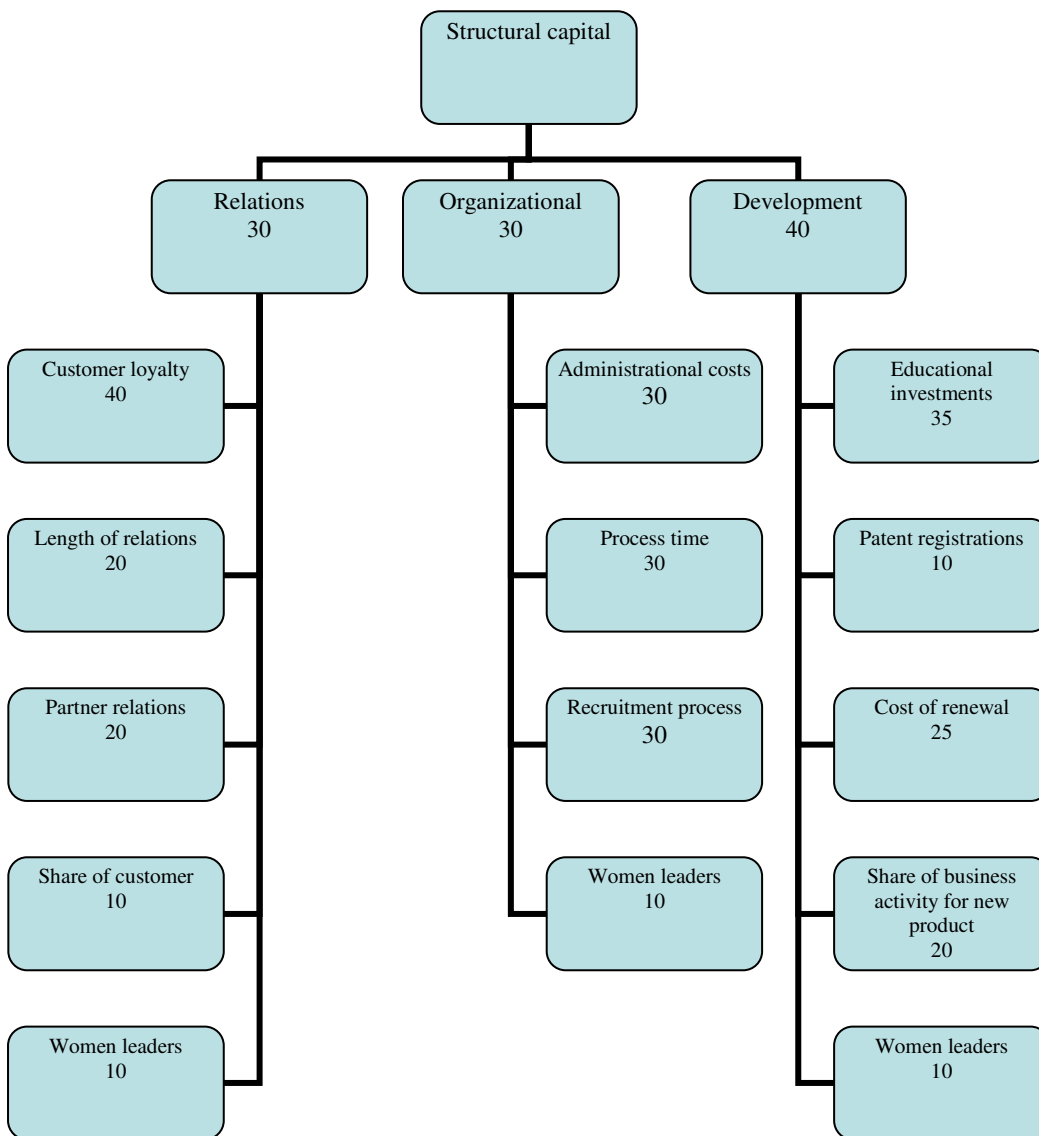
Structural capital Agneta Lundén-Hjält (Adapted by Roos et al, 1997)

Value creation from a gender perspective



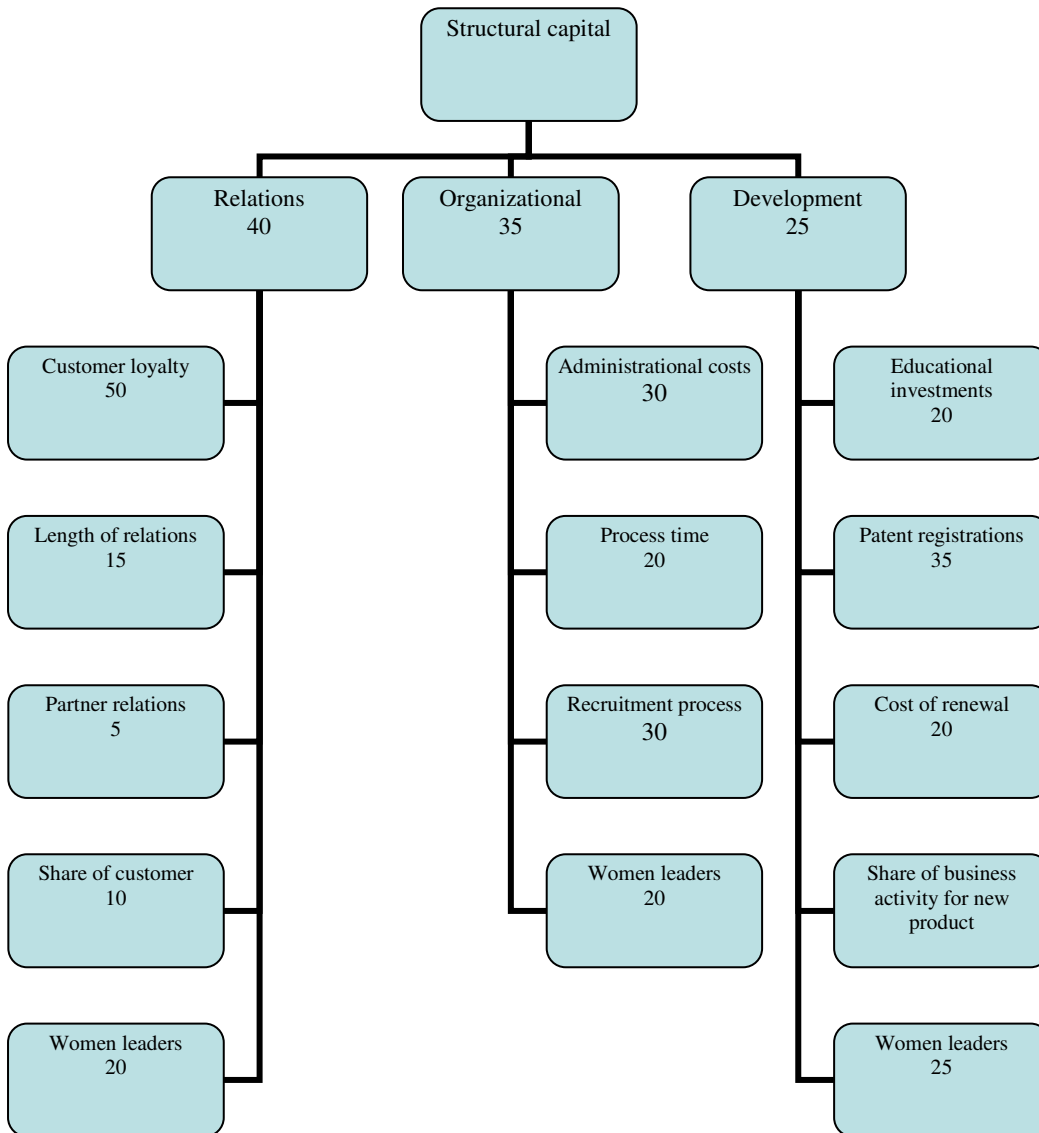
Structural capital Lennart Andersson (Adapted by Roos et al, 1997)

Value creation from a gender perspective



Structural capital Charlotta Uttersson (Adapted by Roos et al, 1997)

Value creation from a gender perspective



Structural capital Thomas Andrén (Adapted by Roos et al, 1997)