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VALUE CREATION

- HOW CAN COMPANIES OPTIMIZE THE HUMAN CAPITAL -

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Abstract

- Title:** Value Creation - How can companies optimize the Human Capital.
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- Authors:** Sofia Andersson, Jenni Carlsson and Christina Lindahl
- Advisors:** Leif Edvinsson and Christer Kedström
- Keywords:** Human capital, value creation, value added per employee, human capital efficiency and structural capital.
- Purpose:** The thesis aims to examine how companies optimize the human capital from a value creation perspective. The value creation will be related to transfer of knowledge, recruitment, staff turnover and development.
- Methodology:** The thesis has a deductive approach and six qualitative interviews have been conducted. The results from the interviews will be strengthened with a quantitative data analysis of two measurements; value added per employee and human capital efficiency.
- Theoretical framework:** The theoretical framework includes definitions of human capital. Theories regarding human capital investments and how to find and develop the human capital are presented. The relation between human and structural capital and theories regarding the measurements are presented.
- Empirical data:** The empirical framework is based on data obtained from the interviews and from the companies' annual reports.
- Conclusion:** Our conclusion is that the optimization of the human capital is depending on the organisational capital. External recruitment and staff turnover can have an indirect affect while internal recruitment, development and transfer of knowledge can have a direct affect. The factors affect is managed and determined by the organisational capital that influences the optimization of the human capital.

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1 The Beginning of Our Journey

The beginning of our journey will start with an introduction to the subject human capital, both historically and up to date issues will be presented. Important factors that affect the employees' investment of human capital will be discussed and the thesis' purpose will be presented. This first chapter will end with delimitations and a disposition.

1.1 Introduction

There has been a change in society and focus has gone from an industry and service-society to become a knowledge-intense society. Within the working environment the old mass-production and bureaucratic companies have ended up in the shadow of today's knowledge and innovation companies where dynamic network and flexible control are in focus (Alvesson, 2007).

“There are no longer businesses that are producing goods and offering services, it is all about value creation.” (Alvesson, Mats - Dagens Nyheter, 2007-08-12 Translated from Swedish)

The number of innovation and knowledge companies has increased at the expense of many smaller more traditional companies (Alvesson, 2007). Drucker (1998) also discuss this change when he writes about knowledge societies. The society today is drastically different from the industrial society and focus lays on obtaining and applying knowledge that in the future will become key competitive factors. Nonaka and Takeuchi (1995) take it one step further and point out that creating knowledge is the key factor to sustaining a competitive advantage.

“Knowledge-creating companies may not necessarily be good at making money, but in the long run they will win”. (Nonaka, Ikujiro - Dialog on Leadership, 1996)

Since the society is changing companies have to discover new roads to make sure that the employees feel involved and committed. This means that they have to capture the creativity that employees possess in order to engage them in the company (Nelson, 2007).

“Instead of using threats and intimidation to get things done, managers must create environments that support their employees and allow creativity to flourish”. (Nelson, Bob – Boston Business Journal, 2007)

Nelson (2007) states that there is an increased competition for talent today and the key to survive is to capture and keep this talent within the organisation. Further he states that companies must create a positive work environment and provide growth opportunities for the employees in order to create loyalty.

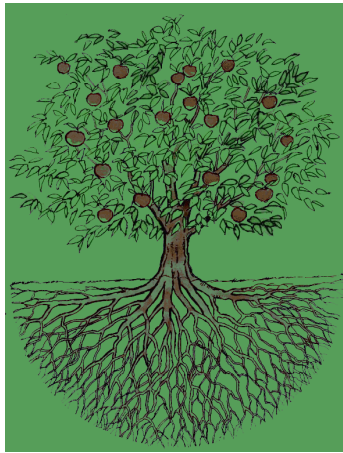
The introduction shows that it is not only important for a company to attract and obtain knowledge. Future success depends on how good a company is at creating an environment that encourages the creation of knowledge.

1.2 Definition and Importance of Human Capital

Human capital consists of individual's capabilities, knowledge, skills and experience. It also consists of how well a company captures new skills, upgrades them and last but not least it includes the company's values, culture and philosophy (Edvinsson & Malone, 1997). Stewart (1997) states that human capital is one of the most difficult aspects for a company to identify and develop but once this is done it will become an important competitive advantage.

“...one answer to the critical question in strategic management regarding why firms vary in performance is that they differ in human capital.” (Hitt, Bierman, Shimizu & Kochhar – The Academy of Management, 2001)

According to Edvinsson and Grafström (1998) human capital is a part of the intellectual capital. This is illustrated by the drawing of a tree where the human capital lays in the trunk of the tree and is protected by the bark that consists of customer relations and work routines. Research and planning is what the company needs to survive tough times and this is found in the roots of the tree. The better the root system is and the better the trunk is protected by the bark the greater the harvest will be.



Intellectual Capital Tree. (Edvinsson & Grafström, 1998)

The significance of developing talent is widely known and companies spend a lot of resources and money on developing and recruiting human capital. Even though there are plenty of systems and processes that support the development of human capital many companies are struggling to find the right people (Ready & Conger, 2007).

1.3 Historical Aspects of Human Capital

Up until the 1950s human capital was not seen as something important and it was understood that labour power was the only way to increase the value of the company. There were researchers in the 18th century such as Adam Smith who argued that it was important to invest in education and other training. It was not until Theodore W. Schultz in the middle of the 20th century started exploring the effects of human capital on economic growth that it became a known fact (Becker, 1993). Schultz (1971) defines human capital as the following:

“The distinctive mark of human capital is that it is a part of man. It is human because it is embodied in man, and it is capital because it is a source of future satisfactions, or of future earnings, or of both...human capital is not a negotiable asset in the sense that it can be sold. It can, of course, be acquired not as an asset that is purchased in a market but by means of investing oneself.” (Schultz, W. Theodore - Investment in human capital, 1971)

Human capital theory, as Schultz (1971) named his study, stated that money that is spent on education and training should be seen as investments because it is one way to increase personal income. Schultz was the one who first coined the term human capital and in 1979 he won the Nobel Prize in Economics together with Sir Arthur Lewis (nobelprize.org).

Another eminent researcher who also received a Nobel Prize is Gary Becker. According to Becker (1993) there are different types of knowledge; company-specific and general knowledge. Becker (1993) stated that due to company-specific knowledge most promotions are made within the company instead of recruiting externally. This can be illustrated by the example when Proctor & Gamble started a joint venture in Saudi Arabia and was in need of a new manager. They did not hire someone from the outside, instead they saw the potential in their own employees and in five minutes they found five candidates inside the organisation that possessed the right qualities for the job (Ready & Conger, 2007).

1.4 The Situation Today - Current Discussions and Problems

Companies have different approaches when it comes to affect and take advantage of the human capital. Many of these have been questioned and new approaches are constantly developing.

Today it is of even greater value to make sure that the existing competence in the organisation is spread and further developed by other employees. Informal learning can be seen as socialisation between co-workers and their ability to spread knowledge and motivation. A critical question is to what extent the employer can affect and encourage the employees to do this?

Companies differ when it comes to recruitment. When recruiting externally the company takes the risk of losing core values but will on the other hand receive new inputs that could create value which otherwise could have been overlooked. This is a current topic among companies today and they have all developed different strategies. Hennes & Mauritz is a good example of a company that mainly focus on internal recruitment (www.hm.com). Some companies, such as Ericsson, are moving away from the traditional view with focus on recruiting with a long-term perspective and instead use more consultants (www.ericsson.se). Will companies' cultures and core values, factors that are proved to be essential for the company (Alvesson, 2002), be damaged and will the aim to optimize the company's human

capital be at the expense of a wiped out culture? How can the company make sure that the external knowledge is transferred and integrated within the organisation?

According to statistics (www.scb.se) staff turnover has increased during the last years. The demand for new skills and competence are greater now than ever and extremely important if a company wants to stay competitive and successful. An example of this was when Ericsson paid their older employees to quit so that new knowledge could be brought into the company. However does higher staff turnover and greater flow of new competencies affect the human capital in a positive way? Is this a beginning of a new era where permanent jobs and internal careers are history?

Companies have to make sure that the work environment brings out the best of the human capital. Providing the employees with growth opportunities in terms of education and career possibilities for example could do this. It is also important to create an environment where the employees feel that they can socialise and actually enjoy their work. To build an environment where the employees feel motivated and content could increase their commitment to the organisation. Companies need to ask themselves what motivates their employees.

Companies need to measure the value that is created by the employees to be able to determine how well they use their knowledge and skills. Although measuring the human capital in a company has proven to be very difficult yet there are some different methods on how to measure this intangible asset. Edvinsson's IC-index (1998), value added intellectual coefficient (VAIC), human capital efficiency (HCE), value added per employee (Pulic, 2004) and human capital investment HCI (Davenport) are some of the measurements that capture the value created by the human capital.

Factors such as transfer of knowledge, recruitment, staff turnover and development are discussed when it comes to how companies create value. Since human capital has become one of the most critical factors for a company's success it is interesting and important to examine the factors mentioned above and how they affect the human capital.

1.5 Problem Formulation

The discussion above raises questions that companies must ask themselves in order to be successful.

- To what extent can the employer affect and encourage the employees to transfer knowledge?
- Is the best way to increase and develop the human capital an external or an internal recruitment?
- Does a high staff turnover increase or decrease the utility of the human capital?
- By investing in employees, how can companies affect the development in order to create more value?

The human capital has become a vital resource for companies and the created value needs to be measured in order to evaluate how good the company is at taking advantage of its employees' knowledge and skills. This thesis will have a focus on value creation and therefore the value added per employee and human capital efficiency will be used as measurements.

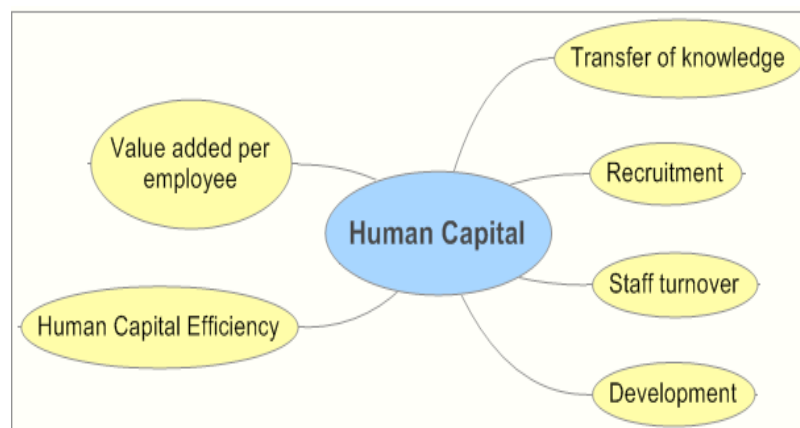


Figure 1:2 Some factors affecting the Human Capital.

1.6 Purpose

The purpose with this thesis is to examine how companies can optimize the human capital from a value creation perspective.

1.7 Delimitations

We will focus on the factors mentioned above and do an in-depth study of these. We do not know in advance if there are any other factors worth studying but because of time-limit we will only observe the chosen ones.

We have chosen to analyze how well the companies optimize the human capital by only calculating value added per employee and human capital efficiency.

1.8 Disposition of the Thesis

The beginning of our journey. In the first chapter we will introduce the reader to our topic and let the reader become familiar with the current issues about human capital. By presenting historical studies and newly published articles together with our view of the context, we hope to capture the reader's interest. Purpose and delimitations will also be presented.

How are we going to get there? This chapter will provide an overview of our working process. There will be a discussion motivating the selection of method such as data collection and interview method. The report quality will also be discussed.

Guidebook. This chapter contains a presentation of the theoretical framework that has been used to fulfil our purpose with the thesis.

Findings during our journey. This chapter will provide charts and data collected from the interviews. The material gathered from the interviews will be presented topic by topic.

Exploring our destination. This chapter contains our analysis where the result from the empirical framework will be analysed with the selected theories in order to fulfil the purpose with this thesis.

Coming home. In this final chapter our conclusions will be presented. There will be a discussion regarding what could have been done differently and finally questions, which arose during our journey, will be asked.

2 How Are We Going to Get There?

In this chapter we describe how we are going to reach our destination. The different methods we have chosen and how we have carried out these will be presented. It provides an overview of how we collected necessary information and there will be a discussion regarding the quality of the thesis.

2.1 Research Design

This thesis takes off from theories concerning human capital and the measurements used to evaluate it. These theories have later been used to analyse the empirical material in order to answer the purpose of this thesis. Therefore the deductive approach was selected, as it was the most relevant one. Criticism to this approach is that the researcher often has expectations before starting the research and this limits the access to information and can result in important information being overlooked (Jacobsen, 2002). We have kept this in mind and have had open discussions to make sure that all perspectives were considered and that nothing was forgotten.

2.2 Approach

To receive useful information about human capital we have performed interviews, which is one of the main research methods associated with the qualitative approach (Bryman & Bell, 2003). The value created by the human capital has been calculated with two measurements; value added per employee and human capital efficiency. This was done in order to strengthen the empirical framework as well as the analysis hence a quantitative approach has also been used. According to Strauss and Corbin (1990) these two methods can be combined and used in the same research. In this thesis the quantitative data has been used to confirm the qualitative analysis. The qualitative method was needed to see the complex facts that were difficult to find only using the quantitative method. When performing a quantitative approach there is a risk that there will be no depth in the study (Bryman & Bell, 2003). Since this thesis also includes a qualitative research this negative aspect has been avoided.

2.3 Selection of Factors

On the basis of the knowledge we received from reading current literature and articles about human capital and after discussions with our advisor, Professor Leif Edvinsson, we decided to analyse four topics. We thought that these factors were important when it came to affecting the human capital. The topics can be applied to all the companies in the study since none of them are specific to any business area. Human capital is a very current topic, there have been many studies and models developed in the area but the topic has no rights or wrongs (Chatzkel “In” Leitner, 2007). Therefore it was difficult to choose which factors that should be considered and others such as time-aspect were also thought of. Our choice resulted in the following factors; transfer of knowledge, recruitment, staff turnover and development.

2.4 Selection of Study Objects

To receive information for this thesis we have chosen to interview five companies. The intention was to bring out a comparison with another thesis concerning structural capital, hence the selection of four of the companies. Unfortunately the authors of the other thesis decided to only analyse three of these companies and one of these three companies did not want to give an interview. This resulted in that the comparison could only be made between two of the four companies. The other two companies were chosen in order to widen our empirical framework and the belief that they might have a special approach regarding their human capital.

2.4.1 Presentation of Companies



HiQ is a consultancy firm with main focus on high technology sectors and specializes in communications, software development and simulation. HiQ has nine different subsidiaries in Scandinavia and in Eastern Europe (www.hiq.se).



Sweco is a Swedish consultancy firm offering services in engineering, environmental technology and architecture. The company has 11 specialised subsidiaries with offices in 10 different countries (www.sweco.se).



Ericsson is one of the world leading producers of telecommunication equipment and related services to mobile and network operators. 40 percent of all mobile calls are made through Ericsson’s systems and over 1000 networks in 140 countries use their network equipment (www.ericsson.se).



Hennes & Mauritz is a fashion company selling clothes and cosmetics in about 1500 stores in 28 different countries, on-line and through catalogues. Hennes & Mauritz do not own any factories; instead they cooperate with 700 independent suppliers in Asia and Europe (www.hm.se).



Massive Entertainment is one of Sweden’s largest computer-game design companies. The company produces games and interactive entertainment software for a worldwide market (www.massive.se). There will not be any measurements calculated or charts due to the fact that up until 2006 Massive has not released any games.

	Ericsson	Sweco	H&M	HiQ	Massive
Employees	63 871	3986	40 368	850	130
Average age	41.5	44	34	31,6	28
Net Sales (million SEK)	177 783	3 895	68 400	801	0

Figure 2:1 Key facts about the studied companies, 2006.

2.5 Information Gathering

To receive information about the human capital in the chosen companies we have conducted both a primary and secondary gathering of information. The primary information was gathered from interviews and constitutes the empirical data. The secondary information consists of studies about human capital from leading researchers and information from the companies’ annual reports. We have also read current articles concerning human capital. Both the primary and the secondary information were later used in the analysis.

Five interviews were conducted with representatives working within the human resource department at each of the companies. We chose to interview these since we believed that employees working within this department possess most knowledge regarding our topic.

There was also one additional interview with Doctor Karl-Heinz Leitner, a researcher on the subject, to receive relevant information about human capital and to strengthen our empirical framework. Important insights from the advisor of this thesis Leif Edvinsson has also been taken into consideration.

2.5.1 Primary Data - Interviews

To receive essential information for the research semi-structured interviews were held since this allowed us to ask further questions if we thought it was necessary to develop the interviewee's answer. When performing a semi-structured interview it is common to use an interview guide (appendix 1). It is not necessary that the questions in the interview guide are asked in the order they are written (Bryman & Bell, 2003). If the interviewee led the interview to a different topic we were able to continue on this topic if we thought it was relevant for our study. Using semi-structured interviews helped us to find new angles that we had not thought of before the interview.

The interview with Leitner concerned the same topics (appendix 1) as the questions asked to the companies. However we asked some additional questions that were more detailed regarding human and structural capital in order to receive important insights.

The interviews were performed face-to-face when it was possible since we thought this would give us the best result. Body language and other ways to react to questions can give a lot of important insights on the interviewees' opinions. Telephone interviews were made with Leitner and Sweco due to geographic issues. To prepare the interviewee for the interview, a document with the main topics was sent a while before the interview. We were aware of the fact that this could eliminate flexible responses but were willing to take this risk. The questions in the interview guide were formulated in a way that did not affect the interviewee. This means avoiding questions that would lead the interviewee towards a certain answer. The interviews were performed with at least two interviewers present to make sure that relevant information was not overlooked and important questions were not forgotten. This is something that otherwise could happen when performing semi-structured interviews where there is no exact question form.

One problem that could occur conducting the interviews was that the interviewee would refuse to give out important information because he or she might believe it could harm the

company. Another problem that also might occur was if we had preconceived opinions about the company and therefore overlooked important information. We tried to avoid these problems by not asking uncomfortable questions and by being as objective as possible towards the companies and the subject. Furthermore five out of the six interviews were recorded since this was a good way to make sure that important information was not disregarded.

2.5.1.1 Transcription

When performing the interviews we have been using a tape recorder to avoid the risk of losing important information. To write down everything that is said takes a lot of time and we believed that this also could be a disturbance and important follow-up questions could be forgotten. One important issue that can arise when using a tape recorder is that the interviewees could be bothered by the tape recorder and not speak as freely as they would have done without it. By asking the interviewee in advance if we could record the interview we avoided this problem. Only in one case the interviewee preferred not to be recorded and instead notes were taken. It has been found that many interviewees often “open up” at the end of the interview when the atmosphere usually becomes more relaxed (Bryman & Bell, 2003). Therefore we continued the recording when the actual interview was done and there were just small-talk.

To make sure that the interview process would feel as natural as possible it was conducted in Swedish and transcribed in this language. After the transcription was done the parts that we intended to use in the empirical framework was translated into English. Here we had to consider the distortion that might happen when translating from one language to another (Bryman & Bell, 2003). When it came to translating quotes one of us first translated it to English and then another translated it to Swedish again. By doing this we make sure that the quotes are translated correctly so that the reader will understand the full meaning of its contents.

2.5.2 Secondary Data

Current articles about human capital have been used in the introduction to provide up to date issues to capture the reader's interest. Literature and articles constitutes the theoretical framework and has provided us with theories and knowledge on the subject.

The secondary data used in this thesis has been received from:

- Lund University, Malmö Stadsbibliotek and the search engine ELIN have been used to collect literature.
- The database of theses from the School of Economics and Management at Lund University has been used to receive other aspects on the subject.
- Search engines like Google have been used in order to find articles, statistics and reports that would provide us with the latest publications and up to date information.
- The homepages of the interviewed companies have been used for downloading annual reports and information regarding the company.

2.5.2.1 Measurements

To be able to evaluate the human capital two measurements have been calculated (appendix 2). These measurements were calculated using data from the companies' annual reports. We have chosen to use value added per employee and human capital efficiency. These measurements have been chosen in collaboration with the advisor of this thesis Leif Edvinsson and with support from the Institute of Human Resource Indicators. Both the measurements are related to the companies' financial results and have been chosen partly because we assume that value creation is related to the company's human capital. HiQ has already specified value added per employee in their annual report but we chose to re-calculate this measurement to make sure that all measurements were equivalent.

There are many measurements that evaluate the human capital such as soft measurements for example. However none of them stood out more than the other. We found the chosen measurements to be most suitable because they are easier to measure compared to soft measurements and are more commonly used. It would have been interesting to use soft measurements for example work environment, relations or values that is found in Work Conditions Index (www.nyckeltalsinstitutet.se). But in order to use these measurements we

would have to make our own classifications, which might not have given us accurate results and would have been too time-consuming. We have also been aware of the fact that the measurements might be affected by macro effects, which we have had in mind while conducting the analysis.

2.6 Report Quality

When conducting a qualitative data analysis the interviewers should not only focus on asking questions. The validity and reliability depends a great deal on the researcher and how this person acts and what skills he or she has when it comes to methodology, sensitivity and integrity (Patton, 1990).

2.6.1 Reliability and Validity

When performing a study the outcome of the result should be repeatable. Reliability is mostly used in quantitative studies where it is important that measures can be reliable and consistent. Validity refers to whether a measurement that is found to evaluate a certain theory is the right one (Bryman & Bell, 2003).

It is important that the measurements we have used to calculate the companies' value that is created by the human capital is reliable and that they are stable over time. It is also important that they are the right measurements for fulfilling the purpose of this thesis. The measurements have therefore been thoroughly studied and also compared to others before they were chosen.

Another aspect that might affect the reliability and validity of this thesis when analyzing the measurements are macro effects in the market. This could be effect in the business cycle where a boom or a recession might create distortions in the measurements that can harm the reliability of the evaluations. Another macro effect that can harm the reliability of this thesis is the fact that all of the companies except Massive act on a global market. However we have not been able to take this aspect into consideration and in other words the values received from our measurements might not only indicate effects of the human capital.

The interviewees' answers have been carefully considered to make sure that they were correctly understood and that no inconsistency would arise between our interpretations. Using the answers in the analysis we had to make sure that they were reliable.

When analysing the companies we had to make sure that the interviewees were representative and that they would give us a correct description of the company. The interviewees had worked at the companies for a long time and therefore we thought they were well acquainted with both the company philosophy and the subject. Interviewing only one or two employees at the companies might not have given us an accurate result in every aspect. But due to time issues it was impossible both for the companies and for us to conduct interviews with more than one or two employees at each company. Analysing only five companies would probably not give a statistically accurate result however our intention was to analyse how each of our studied companies optimized their human capital in hope find a pattern. We were aware of that this might not be applicable to all companies.

2.7 Outline of the Theoretical Framework, Empirical Study and Analysis

The theoretical framework starts with an explanation of intellectual and human capital. Theories regarding the relation between human and structural capital is presented. After this there is an explanation of human capital investments and what companies can do to motivate their employees. Different approaches when it comes to finding and developing human capital will then be presented. The chapter is brought to an end with an explanation of the measurements, which are based on value creation as an indication of how well the companies optimize the human capital.

The empirical study begins with the calculated measurements. These are presented in charts to give the reader a better understanding of the companies' situation. The material received from the conducted interviews is then presented and each section is ended with thoughts from Leitner.

The analysis starts with a short reflection over the measurements. After this each company is analyzed individually using the material from the theoretical framework and the empirical study. Parts of our analysis of Hennes & Mauritz and Ericsson will be compared with the thesis of Englén and Wikstrand (2008).

3 Guidebook

This chapter is a guidebook that will help us to explore our destination. It contains an overview of the chosen theories that is needed in order to fulfil the purpose of this thesis. Theories and definitions of human capital will be presented as well as the measurements that will be used to analyse the value created by the human capital.

3.1 What is Intellectual Capital

Intellectual capital is a company's people and their talents, efficiency when it comes to management systems and also the relationship the company has to its customers. When someone invests in a company the investment is not in the company's physical capital instead it is in talents, skills, capabilities and ideas (Stewart, 1997).

Edvinsson (2008) states that the value of intellectual capital can be five to 16 times the value of a company's financial and physical capital. The difference depends on how the market evaluates the company and if the market value decreases the ratio will lessen. Intellectual capital consists of human capital and structural capital and the latter involves databases, customer relations and brand names for example. As Edvinsson and Grafström (1998) write about structural capital:

“...everything that remains when the employees have gone home for the day.” (Edvinsson, Leif & Grafström, Gottfried - Accounting for minds - an inspirational guide to intellectual capital, 1998)

Compared to human capital the company can own structural capital and this is why human capital is more risky. Structural capital consists of customer capital and organisational capital. Customer capital is the value of a company's relations with its customers. Organisational capital is divided into a company's innovation capital; this exists of patents, legal rights and business secrets among others and into process capital that consists of technical solutions and processes. See figure 3:1 for a model of the intellectual value scheme (Edvinsson & Grafström, 1998).

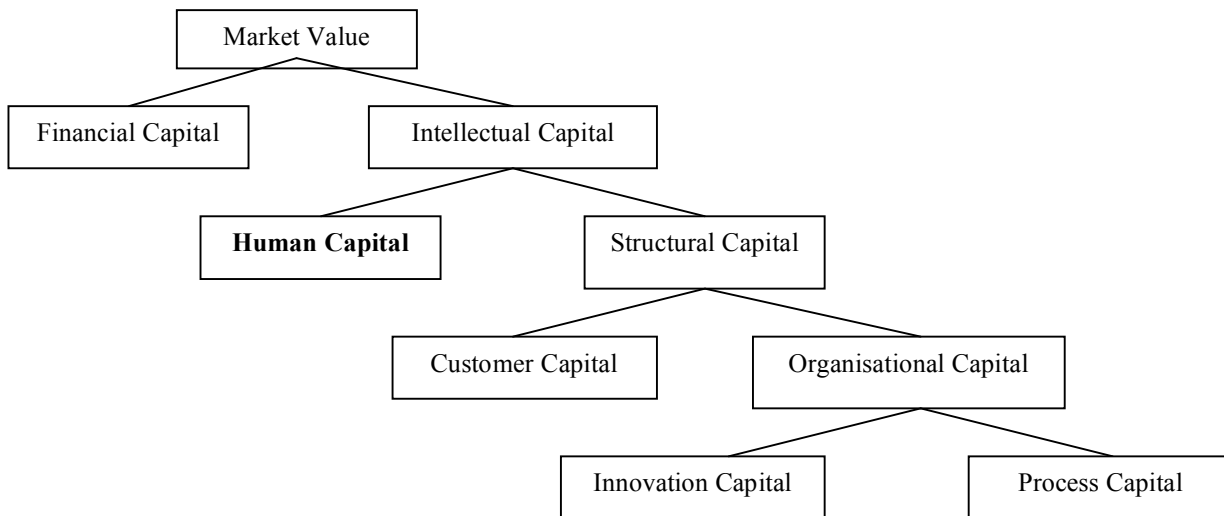


Figure 3:1 Intellectual Capital Value Scheme. (Edvinsson & Grafström, 1998)

As already mentioned there are many definitions on intellectual capital and its components. The explanations vary from different professors and among various industries. It can be seen from different perspectives and used in all kinds of purpose or context. However Chatzkel (2002) stated that there is no right or wrong and instead it is up to the user to choose which definition works best for a particular need (Chatzkel “In” Leitner, 2007).

3.2 What is Human Capital

Huang et al (2007) tried to simplify and clarify the definition of human capital by arranging a new grouping of the intellectual components based on managers’ questionnaire responses. They identified and confirmed the classification founded by Guthrie et al (2004). They assumed that human capital consisted of the following 15 items divided into three categories:

Employees' capabilities	Employees' development & retention	Employees' behaviour
Employees' know-how and expertise	Employees' job satisfaction	Key employee turnover
Employees' work-related competence	Leadership qualities of managers	Incentive programme and compensation scheme
Employees' creativity and innovativeness	Employees' motivation	Employees' previous job experiences
Employees' work-related knowledge	Employees' loyalty	Employees' level of education and vocational qualification
		Employees' profitability
		Employees' training
		Employee recruitment costs

Figure 3:2 Human capital items. (Huang et al, 2007)

The study confirmed a consistency between the theory and actual practice in companies. Their report also indicated that today's definitions are adequate even though the prior grouping seems to overlap and be inter-connected the user should not be too distracted by the choice of definitions (Huang et al, 2007).

3.2.1 The Relation Between Human and Structural Capital

A study made by Leitner (2007) showed that companies using innovation strategies are associated with higher levels of intellectual capital. It was also proved that companies that were both incremental innovators and new product developers had a stronger human and structural capital than companies which were neither of it. Among innovating companies the human and structural capital were both notably related to the performance but had a different effect on innovation performance. The structural capital had a negative effect on the growth and profitability while the human capital had a positive. This means that innovative companies with a high structural capital might have difficulties to grow. One reason explained by Leitner (2007) are their difficulties to think creatively and develop new strategies because structural capital can be seen as a static resource. The two factors did not seem to complement each other well and companies that had both high human and structural capital were not successful.

This is also supported by the study of Youndt et al (2004), who found that companies tend to specialise on only one form of capital. There are however researchers stating the opposite such as Edvinsson and Malone (1997) who emphasizes the importance of having a well working structural capital to optimize the employees' full potential. Leitner (2007) also found that the human capital was negatively related with performance in non-innovating companies while the structural capital affected the company's performance positively.

3.2.2 The Transformation of Knowledge

Tacit knowledge is knowledge that is difficult to formalise and communicate mostly because of the fact that it is personal and specific to each context. If tacit knowledge is not transferred into explicit knowledge it can not be shared organisationally. According to Nonaka and Takeuchi (1995) the transformation process is the key to transfer personal knowledge into organisational knowledge. This interaction then leads to the creation of new knowledge.

Socialisation enables the transfer of tacit knowledge through interaction between the employees. Nonaka and Takeuchi (1995) state that the key to acquire tacit knowledge is experience. For employees to be able to share each others thinking processes there has to be a form of shared experience as well. Living and spending time together are example of joint activities that simplifies the sharing of tacit knowledge. In other words direct interaction between employees supports the capturing of knowledge.

Transforming tacit knowledge into comprehensible forms is called externalisation. During this part of the knowledge creation process the employee joins a group and becomes one with the group. The employee's knowledge and ideas integrate with the group. Techniques that help the employee to express his or her ideas are for example images, concepts and metaphors and these makes the process of turning tacit knowledge in to explicit knowledge easier.

Newly created knowledge can internalise explicit knowledge into organisational tacit knowledge. Employees have to identify which knowledge that is relevant for them within the organisational knowledge. Training and learning by doing makes it easier for the employee to access the knowledge territory of the group and the organisation as a whole. Education and training programs help new employees to understand the organisation.

The key issue when changing explicit knowledge into more complex explicit knowledge is communication processes and systemisation of knowledge. To capture and integrate new

explicit knowledge is crucial. Companies should collect external knowledge from either inside or outside the organisation and then combine it. Spreading explicit knowledge is based on the transfer of knowledge by using presentations or meetings. Editing and processing explicit knowledge makes it more useful. To sort, add, re-categorise and re-contextualise the explicit knowledge can according to Nonaka and Takeuchi (1995) lead to the creation of new knowledge.

3.2.3 Identify which Human Capital that Add Value

Not all employees contribute with human capital to an organisation. Low-skilled and routine-based work does not require human capital for any organisation. This type of work can often be replaced either by another employee or by a machine or computer. As Stewart (1997) says:

“he is a hired hand, not a hired mind.”(Stewart, A. Thomas – Intellectual Capital; The new wealth of organisations, 1997)

People’s knowledge, talent and skills need to be more explicit (Stewart, 1997). For most companies it is difficult to find and enhance talents that truly can become assets. Stewart has in his model (figure 3:4) identified which human capital that adds most value to the company.

Difficult to replace, low value added.	Difficult to replace, high value added.
Easy to replace, low value added.	Easy to replace, high value added.

Figure 3:3 Which Human Capital add value? (Stewart, 1997)

Low-skilled employees are found in the lower left-hand quadrant. Companies need these people but the company’s success does not rely on these as individuals. In the upper left-hand quadrant are the employees that possess more skills but they do not make any decisions. These employees are hard to replace but their work is not important for the customers. Since these employees do not contribute to any customer value they put the management in a difficult

position because they are important to the company but the company wish they were not. The management need to inform the work of these employees, in other words their work must start to add value to the company's customers.

The employees in the lower right quadrant perform tasks that customers values but as individuals they are replaceable. If the company outsource this work they would not need to invest in employees that perform tasks that are not proprietary (Stewart, 1997).

In the fourth quadrant are the employees that are irreplaceable both for the organisation and as individuals. According to Stewart (1997) a company's human capital is in this quadrant and these are a company's true assets. It is of great value that the management has processes on how to capitalise the individual knowledge in this quadrant into an organisational asset (Stewart, 1997).

3.2.4 Can Human Capital be Owned?

Employees tend to give their loyalty not to their employers but to their profession and community of practice.

“People can be rented, but not owned.” (Stewart, A. Thomas - Intellectual Capital; The new wealth of organisations, 1997)

There is of course knowledge that can be owned by the company. Intellectual-property laws can protect this knowledge and some can be turned into structural capital. A way for a company to try and own their human capital is to develop mutual ownership between the employee and the company. As Handy (1995) puts it:

“I believe that corporations should be membership communities because I believe corporations are not things, they are the people who run them. In order to hold people inside the corporation, we can't really talk about them being employees anymore. To hold people to the corporation, there has to be some kind of continuity and some sense of belonging.” (Handy, Charles –“In” Strategy + Business, 1995)

Job security and loyalty are factors that have decreased in importance to employees but in this there exists a contradiction because of the fact that human capital is more important to companies now than ever.

According to Drucker (1998) knowledge makes employees mobile. Knowledge-workers carry their knowledge in their heads and can take it with them whenever they feel like it. An increasing number of these employees identifies themselves with the knowledge they possess and not with the organisation they work for.

3.3 Human Capital Investments

It is required that companies not only develop strategies regarding markets, techniques and financing but also strategies on how to develop their human capital (Hansson, 2003). Davenport (1999) states that there are four aspects of capturing, keeping and developing the human capital in a company. These aspects are to hire the right people and to create an environment that brings out the best in the employees. But also to build employees' human capital by informal and formal learning and to keep the employees committed and engaged.

3.3.1 Commitment and Engagement

When an employee feels an emotional or intellectual connection to the organisation commitment will develop. Commitment is when an employee accepts the company's goals, strategies and values and when there is a desire for membership. There are three types of commitment. Loyalty based commitment occurs when the employee feels obliged to the organisation and is related with motivation, attendance and dedications to the company's goals. Loyalty based commitment is similar to attitudinal commitment but the degree of commitment and involvement is a bit lower (Davenport, 1999).

Employees that have an attitudinal commitment to the organisation are involved in and identify themselves with the company. This type of commitment is characterized by true membership. The third type of commitment differs a lot from the ones mentioned above because this type of commitment is almost forced upon the employee. Programmatic commitment makes people feel like they can not leave the company (Davenport, 1999).

Another factor that increases the investment of human capital is job engagement. According to researchers low commitment results in high staff turnover and low job engagement leads to increasing absence among the employees (Davenport, 1999). Employees that have a high job engagement often care a lot about their profession but they might not care where they do it. The value that is created by the human capital represents the company’s return on the employee’s human capital investment and employees that are committed and engaged will often invest more of their human capital.

3.3.2 Increasing the Return on Investment in Human Capital

There are different ways to get employees to invest their human capital and these factors fall into four categories (figure 3:4). The first one is intrinsic job fulfilment and consists of an employee’s satisfaction, creativity and interest in the job. The second factor is the one that allows the employees to grow personally and to have a career within the company. To receive appreciation and respect from superiors or colleagues is also very important as well as the feeling of being included in important decision-making. These factors are the elements of the third category. The forth and final category is financial awards.

<p style="text-align: center;">Intrinsic fulfilment</p> <p>Interest, challenge, variety, freedom, control, creativity, fun, social relations and values gratification.</p>	<p style="text-align: center;">Growth opportunities</p> <p>Advancement, leadership opportunities, education, formal training and informal learning.</p>
<p style="text-align: center;">Financial rewards</p> <p>Base pay, incentives, bonuses, commissions, retirement plans, equity, health and welfare benefits, vacation and work/life support.</p>	<p style="text-align: center;">Recognition</p> <p>Appreciation, awards, professional and company recognition, industry and community recognition, public recognition, prestige and respect.</p>

Figure 3:4 Return on investment elements. (Davenport, 1999)

These factors have also been proved by Universum to be important when it comes to the investment of human capital. Several surveys have been conducted and all confirmed a connection between the factors and the return on each employee’s investment of their human capital (Dyhre, 2008).

3.4 Finding and Developing Human Capital

There are different strategies on how to develop the competence within the company. Companies have to consider the time it takes for an employee to adapt to the new environment before taking advantage of hiring staff or consultants for a short period of time (Groysberg et al, 2006). The more important and specific the obtained knowledge is for the companies' development, the higher should the ambitions and requirements on an active integration be (Hansson, 2006). How companies allocate and attract employees with the right competence for the work can be viewed from two different perspectives (see figure 3:5) (Hansson, 2005).

The external perspective includes:

- Strategic recruitment
- Re-sourcing
 - External consultants
 - External leadership
- Outsourcing
- Acquirements or fusions with other companies, joint ventures and external networking

The internal perspectives includes:

- Internal recruitment
- Internal promotion and advancement
- Internal development by cooperation with customer and producers
- Internal development by collaboration through networks and team, project within the company.

Figure 3:5 External and internal perspective of recruitment. (Hansson, 2005)

3.4.1 Internal Recruitment

For the company to establish an internal labour market it requires that the employer show possibilities for the employees to develop their competence within the company. On the job development, specialisation and encouraging the employees to stretch their competence by changing division or team are all factors that have a positive effect on creating an attractive internal labour market. By recruiting internally the company will keep employees with company-specific knowledge that already are well acquainted with the culture. A well working internal labour market will also create job rotation that will increase the employees' knowledge, skills and hopefully spread it within the organisation. However companies might be missing out on the need for change and the employees might not be encouraged to develop their competence when they will be facing the same expectations as before. This is one of the

reasons why most companies sooner or later will need to recruit externally to get new inspiration and influences to the organisation (Hansson, 2005).

3.4.2 External Recruitment

The main reason for a company to recruit externally is the lack of employees with the right skills for a specific position. A new employee with different competence and experience from another industry will increase the circulation of knowledge and this is for some companies a decisive factor. The selection will also be greater than if recruiting internally but it can sometimes be more costly and risky for the company. Furthermore it is of great importance that companies that use outsourcing or consultants can replicate and redeploy their task so the knowledge will be transferred into the organisation. Otherwise the companies may become too dependent of the external part and eventually loose knowledge (Kakabadse et al, 2001).

3.5 Measuring Systems

Companies have used accounting since the 15th century but to value a company's intellectual capital has been proved not to be the easiest thing compared to the evaluation of tangible assets (Stewart, 1997). Many researchers have tried to identify the value drivers that affect the human capital but the outcome has been varied. One reason for the difficulty behind creating a good measuring system is that there are many factors that affect the human capital and these are often of intangible character. Furthermore it is not easy to decide to what extent these different factors affect it. It is of great value to identify the cause and effect relationship between these factors and the human capital and transform the value into tangible forms (www.vaic-on.net).

3.5.1 Value Added per Employee

A company's value added is the value that the company creates with its existing assets. For knowledge companies this is mainly the value that its employees create. The value added is the surplus that remains when all the variable costs have been reduced from the income. The value added should cover the costs of capital, dividends, fixed costs and the costs for employees. It should also cover reinvestments so investments can be made in the future (Hult,

1998). In order to achieve maximum results with the company's resources the management must know how value added is created (Pulic, 2004).

It is argued that value added is a better measure than net sales per employee because provisions, products or services do not as strongly affect the created value. Compared to profit per employee it is better because it is not as easy to manipulate. The effect of including expenditures for employees increase the total sum of the value and this will be less sensitive as a measurement compared to profit (Sveiby, 1995). According to Hult (1998) value added is also the most used method. Sveiby (1995) states that value added is specific for different business areas and therefore a comparison between companies operating in different business areas are of less value. The value added is calculated as following according to Affärsvärlden:

$$\text{Value added} = \text{Operating profit} + \text{employee cost} + \text{depreciation}$$

$$\text{Value added per employee} = \text{value added} / \text{number of employees}$$

3.5.2 Human Capital Efficiency

Value added intellectual coefficient, VAIC, was introduced in 1998 by Pulic (www.vaic-on.net). It is an indirect measurement with focus on measuring the value creation in a long-term perspective. The VAIC focus on two kinds of capital; physical/financial and intellectual. The calculation is based on financial statements and can be used to evaluate and control the company's assets. The fact that it is based on data collected from the audit is one of the models advantages and makes it more objective compared to other measurements. The human capital efficiency can be calculated from the estimation of the VAIC. Since employees produce value and not products it is relevant to see the result of the created value in relation to the cost of the human capital. The costs for employees consist of salaries, pension costs and social security expenses. Both the VAIC and human capital efficiency is based on the value added in the company. The calculation is divided into the following steps according to Pulic (2004):

$$1. \text{ Value added} = OP + EC + D + A$$

Where: OP = operating profit, EC = employee costs, D = depreciation, A = amortisation

$$2. \text{ Human Capital Efficiency (HCE)} = VA / HC$$

Where HC = cost of employees

As the calculation indicates traditional expenditures for employees are seen as investments and not as costs. The employees invest their skills and knowledge in the company and the market values these on the basis of the company’s value creation and activities. This is the reason for why they are calculated as a resource and not as a cost (Pulic, 2004). A value of example 2,0 means that the created value in the company is twice as high as the cost of employees.

3.6 Theoretical Summary

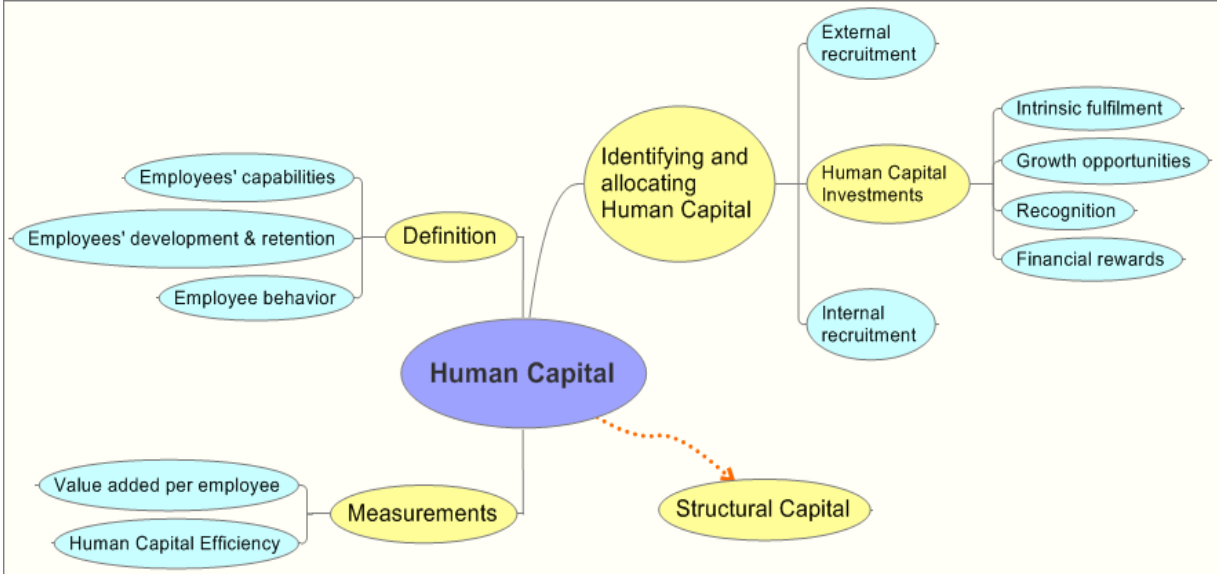


Figure 3:6 Theoretical summary of Human Capital.

The theoretical chapter has provided theories regarding human capital where the definition made by Huang et al (2007) has been used as a starting-point. The relation between human and structural capital has been discussed. Theories identifying human capital that creates high value and how the company can affect it have also been discussed. The main different approaches when it comes to identify and capture human capital are external and internal recruitment. Even though the company can not own human capital there are factors which make the investments in employees more favourable. When it comes to measuring the human capital in a company the value added per employee is one measurement that captures the value created by the employees. The human capital efficiency indicates how well a company use its recourses.

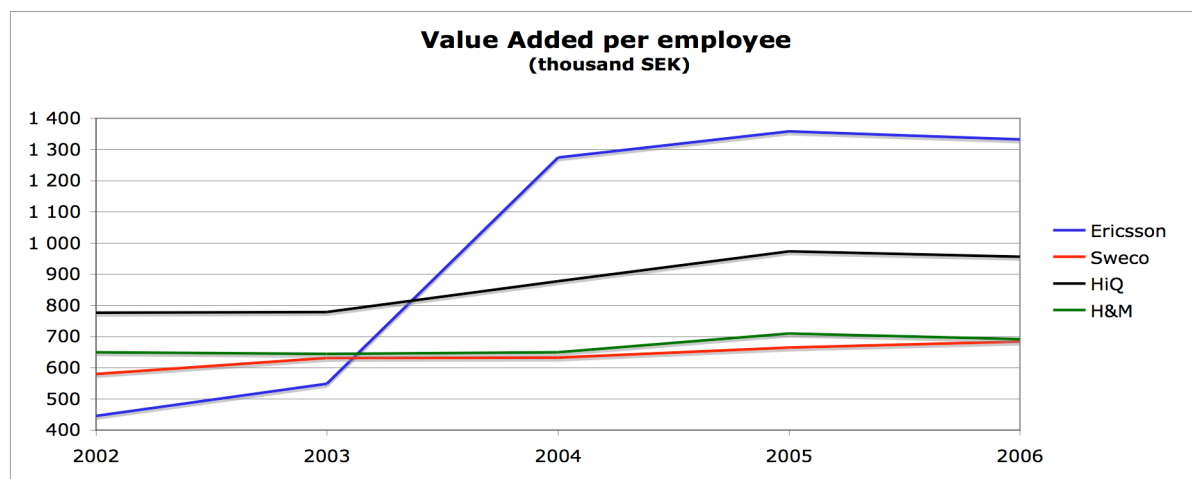
4 Findings During our Journey

The findings during our journey consist of results from our measurements presented in charts and the information collected from the interviews. Our findings will be presented topic by topic.

4.1 Measurements

In order to measure the companies' value created by the human capital we have used value added per employee and human capital efficiency. Only HiQ used value added per employee calculated as the sum of operating profit and cost of employees as a measurement and none of the companies used the human capital efficiency. Both of the measurements have been calculated in the exact same way with the use of the annual reports and the result of the calculations is listed in the charts below.

4.1.1 Value Added per Employee

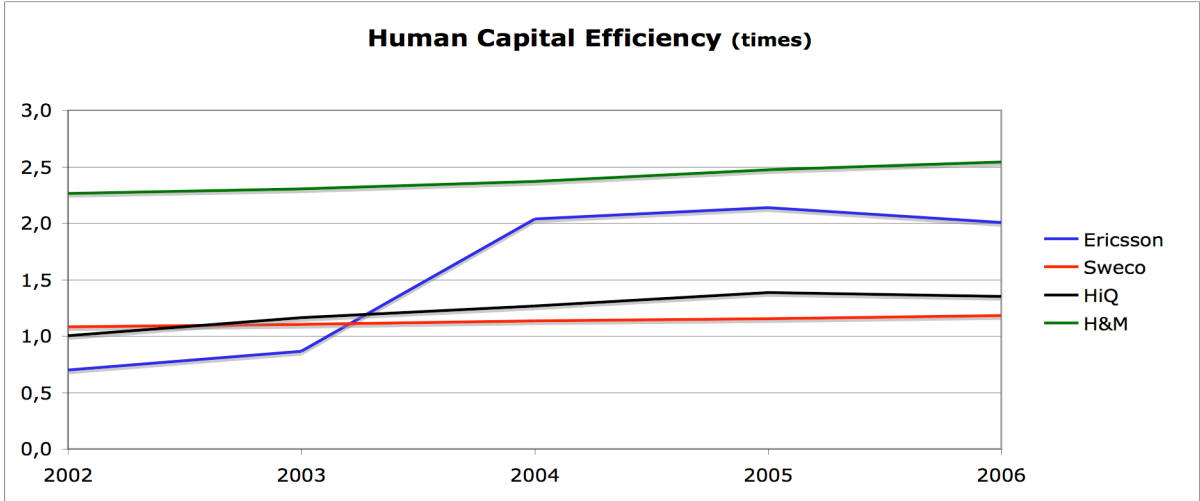


	2002	2003	2004	2005	2006	Growth:
Ericsson	446	548	1 275	1 358	1 332	199%
Sweco	580	632	633	664	684	18%
HiQ	777	779	877	973	956	23%
H&M	650	644	649	710	691	6%

Figure 4:1 Value Added per employee (thousand SEK).

According to Affärsvärlden value added is calculated by adding operating profit, employee costs and depreciation. The value added has been divided with the number of average employees in order to relate the measured values to each other. HiQ’s value added per employee has grown with 23 percent over the five years and has the second highest value after Ericsson. Sweco’s value added per employee is relatively low especially compared to Ericsson and HiQ. However the value has been stable and has had a growth of 18 percent over the period. Sweco is the only company that has a value added per employee that has not decreased from 2005 to 2006. Ericsson has had the highest development with a growth of 199 percent over the five years. Hennes & Mauritz’s value added per employee has grown with six percent from year 2002 until 2006. In 2005 Hennes & Mauritz had, together with HiQ and Ericsson, its highest value added per employee.

4.1.2 Human Capital Efficiency



	2002	2003	2004	2005	2006	Growth:
Ericsson	0,70	0,86	2,04	2,14	2,01	187%
Sweco	1,08	1,10	1,13	1,15	1,18	9%
HiQ	1,00	1,16	1,27	1,39	1,35	35%
H&M	2,26	2,30	2,37	2,47	2,54	12%

Figure 4:2 Human Capital Efficiency.

When calculating the human capital efficiency Affärsvärlden’s definition of value added is used. The measure is calculated by dividing value added with the total cost for employees. The human capital efficiency at HiQ has improved by 35 percent since 2002 and the highest value was in 2005 but since then there has been a slight decrease. Sweco has had a stable, but

not very large, improvement of their human capital efficiency with nine percent. Ericsson had a very low human capital efficiency value in 2002 but has since then improved with 187 percent. Their strongest value was achieved in 2005 and since then the chart shows an indication of a small decrease. Hennes & Mauritz has had a very stable value during the entire period and there has been an improvement with 12 percent.

4.2 The Interviews

The following part will provide facts from the interviews conducted. The information will be presented in the following order; transfer of knowledge, recruitment, staff turnover, and development.

4.2.1 Transfer of Knowledge

When it comes to transfer of knowledge HiQ points out that since they are a consulting firm this is more difficult because the employees do not meet every day. Therefore they have meetings very often, at least twice a week in order to share and discuss experiences. HiQ also states that it is important to discuss successful projects in order to inspire employees as well as provide knowledge.

At Sweco the employees are often very specialised and they usually work in groups with a strong focus on a special business area. The employees can switch groups but it is more common that the employee stay within the same group for a longer time where they work with tasks they are most skilled for. In order to transfer knowledge it depends a lot on each employee and how and where they choose to use their competence.

Ericsson states the importance of capturing and spreading the skills of key employees in the company. They also point out the value of employees that possess special skills when it comes to make presentations and that are very enthusiastic. They try to use these employees as much as possible for internal presentations to inspire and motivate the rest of the employees. However everyone in the company has a high workload and these persons can not be used exclusively for inspiring others. Ericsson sees job rotation as a good learning experience for the employees, however since Ericsson has a lot of specific knowledge it is more difficult for the employees to switch departments.

When opening new stores internationally Hennes & Mauritz believes that it is important not to lose the culture and company-spirit and therefore there are always Swedish employees present. These employees are very important since they transfer their knowledge of the company and corporate culture to the employees in the new stores.

Massive considers it to be important to inspire and encourage the employees that possess a certain talent in order to further develop their skills and to transfer it to the rest of the employees.

“There is one example of a technical art director who created very nice images and he instantly received 50 e-mails from colleagues praising his work. The work is thought of as almost a hand craft and employees often become icons if they are extremely talented.” (Interview with Massive, translated from Swedish)

An employee at Massive who possesses a unique skill is often given a specialised role within the company. This employee shares his or her knowledge by educating the other employees. Massive also points out the importance of these employees receiving a lot of credit from the company as well as respect from co-workers in order to stay motivated.

If a person is going to spread his or her knowledge it must be a win-win situation according to Leitner. The employees must be intrinsically motivated and they must gain something otherwise they will not have time and incentives to spread their knowledge.

4.2.2 Recruitment

HiQ uses both internal and external recruitment. Nowadays it is hard to find new employees especially in high technology businesses HiQ points out. Sweco points out that their goal is to recruit both internally as well as externally to be able to grow. About 30 percent of the recruited employees consist of newly graduates. Sweco also points out the difficulty in finding already skilled employees in the ages 40-50.

At the moment Ericsson is searching for more experienced employees than for newly graduated students, however they find it difficult to recruit these employees externally. Ericsson hires consultants to their research and development department for projects that

requires a very specific knowledge but they are very restrictive when it comes to revealing the percentage of consultants working at Ericsson. In Ericsson's case most of the executives comes from within the company but there is such a rapid growth nowadays which makes it impossible to only recruit internally. Therefore there also has to be recruitments of external employees that already have work experience.

Hennes & Mauritz emphasizes on recruiting newly graduates and points out that it is fairly easy to do an internal career at the company if you are the right person for the job and possess the right characteristics that is important.

*“Hennes & Mauritz search for personalities when recruiting, either you are a Hennes & Mauritz person or you are not.”
(Interview with Hennes & Mauritz, translated from Swedish)*

Hennes & Mauritz is a very special company when it comes to recruitment; if there is a vacant position it is often filled by an internal employee who will be educated for the position instead of recruiting externally. However there is some external recruitment at headquarter level and within sales departments.

Massive is operating in a business area that requires a very specific knowledge and they use head-hunters to search for this competence. Massive points out that there is no problem when it comes to recruiting people that just graduated from the university but to find people with experience is extremely difficult and can sometimes take up to two years.

“It is very important with experience in this type of business... but there are not many persons with experience since the business is so young.”(Interview with Massive, translated from Swedish)

According to Leitner it depends a lot on the company's size and age if it recruits internally or externally. He also believes that recruiting someone for a specific project is not optimal because a company can not build up a cultural team with this approach. Leitner believes that since it is easier to find new employees for a consultancy firm the structural capital in these companies are of greater importance than in the other companies where the human capital is more important.

4.2.3 Staff Turnover

Staff turnover is about five percent in HiQ, Ericsson and Massive. At Hennes & Mauritz the staff turnover is about eight percent and in Sweco it is about 17-18 percent.

HiQ believe that they have an extremely low staff turnover and it is their goal to keep it low. Although the company believes that some staff turnover is of value since it brings new “blood” in to the company.

Sweco has a relatively high staff turnover but is not worried about this high number because they see it as quite natural due to the existing economic growth. Sweco has calculated different cycles with staff turnover over different time periods where it found that 10 percent in staff turnover is a reasonable number and a long-term goal. One further reason for the high staff turnover at Sweco is that many of their employees leave the company to start working for their customers. This result in that the company do not loose as much as if the employee had went to a competitor instead.

Ericsson has a staff turnover of 4.8 percent at the moment and this is close to their goal of five percent. If the staff turnover has a tendency to increase within a department the human resource staff make sure to follow up with the responsible manager. However the company believes that it is important with some staff turnover.

Hennes & Mauritz has a staff turnover of about eight percent. The company highlight the fact that young people tend to change jobs a lot more now than they used to and see other opportunities that they want to explore. This leads to a greater need for recruiting and a higher staff turnover. Hennes & Mauritz points out that it is not possible to change an entire group of employees and therefore they believe that it is important to strive for certain stability.

Massive has a staff turnover that is about four percent and the company’s goal is to keep it as low as possible because the required competence is very company-specific and is hard to find. The staff turnover in the administrative business area is higher than among the employees within the production.

“The employees love their work. They play computer games on their spare time and work with producing them. In other words this is their dream and of course they do not want to leave their job.” (Interview with Massive, translated from Swedish)

When it comes to staff turnover Leitner states that an increasing staff turnover is probably negative for the company. Leitner believes that in a consultancy firm a high staff turnover is not a problem since the employees are easier to replace. However in a tele-communication company it can be more difficult. He also believes that for a company like Hennes & Mauritz it could create difficulties if the newly recruited consisted of only young people. Further Leitner states that if an employee is specialised he or she needs to work with the same tasks for a long time in order to be productive. He argues that if the employee changes jobs often he or she will never be great or very productive.

4.2.4 Development

All the interviewed companies believe that development is of great importance in order to keep the employees. However there are differences between the companies when it comes to education. One example is HiQ where it is the employees' own responsibility to take initiative and find educations. There are not many career opportunities at HiQ since it is a very flat organisation and therefore it focus on strengthening the relation with the customers.

“...there is not so much focus on career within the company but rather focus on making a career at the client.” (Interview with HiQ, translated from Swedish)

HiQ puts a lot of emphasis on trying to identify which employee shows a special skill and to help them grow with the company.

“...employees have a backpack with skills and talent and everyone has a special competence.” (Interview with HiQ, translated from Swedish)

HiQ also points out the importance of social activities. Almost every week they have activities outside work to create a team-spirit and to encourage socialisation. In addition to these activities HiQ also arranges events once a month where they invite their customers.

Sweco has an education program called Sweco Academy. In this program the employees advance within a special business and competence area where they have their interest. The employee can also be educated towards becoming an executive. Sweco provides career opportunities and education but it is up to each employee to take initiative if they want to

develop. The company arranges social activities but this is not considered as something important comparing to providing career opportunities.

Ericsson emphasises the importance of educating their employees when they start working at the company.

“We work a lot with “on the job training”, the first six months in R&D is much about development as well as preparation for the work and the employee usually has not reached its full potential until after six months.” (Interview with Ericsson, translated from Swedish)

This is something that HiQ also points out:

“It takes about three to six months before an employee gets familiar with the business.” (Interview with HiQ, translated from Swedish)

At Ericsson the manager of the department has individual meetings with the employees to get an idea of what their goals are and how to follow up on these. During these individual meetings there is a focus on performance and competence development. It is important for an employee to know how to develop their personal as well as their professional skills. The employee must know what he or she wants to do in the future and the manager should guide the employee in this direction.

Ericsson works with something called operational excellence, which means that each individual in the company takes responsibility for their own duties and decision-making. In order for this to work there is an ongoing communication between employees and the manager.

Hennes & Mauritz consider themselves to be well known for their career opportunities and they imply that the high rate of internal recruitment indicates this. The company also have many internal educations for the employees and provides them with possibilities to develop.

Massive encourages the employees to take responsibility of their own development. Every team in the company is provided with a certain amount of money that they can spend on competence development. At Massive each employee's knowledge is very specific but the employees are allowed to move freely between projects if it is possible. However this is not

very common because of the fact that employees feel connected to their project and wants to be a part of the whole process.

Leitner believes that career opportunities are not necessary. He states that employees' main motivation is to have interesting tasks and a good work environment. Although he believes that it can be important for some employees to take on leading responsibility and for the company to offer different career opportunities but it is not always necessary to become a top manager.

4.3 Summary

Transfer of knowledge was something that all companies considered to be important in order to further develop and spread knowledge between employees. When it comes to recruitment it varies among the interviewed companies what they believe is the best approach. The business area they operate in as well as the specific competence that is required affect how the companies recruit their employees. Staff turnover also varied among the companies and as Leitner explains it often depends on what kind of company it is. The last factor discussed is development and all the interviewed companies thought that development was important but their opinions varied when it came to career opportunities. Leitner believes that offering career opportunities was not as important as having an interesting work.

5 Exploring our Destination

In this chapter we will explore our destination and each of the companies will be discussed and analyzed with the help of the conducted interviews, measurements and theoretical framework. There will be a discussion about how the factors affect the process of optimizing the human capital.

5.1 A First Reflection

We have in this analysis chose to focus on each company and thoroughly discuss them one by one. Since the companies act in quite different business areas a comparison will not be in focus. As mentioned in chapter two there will not be any charts presented for Massive since we can not measure the value creation.

The results from our calculations of value added per employee and human capital efficiency show that Sweco, Hennes & Mauritz and HiQ have had a quite stable development. Ericsson's values have been very volatile but it has also had the greatest improvement out of the four companies. Sweco is the only company with a continuous positive development in both measurements. Hennes & Mauritz continues with a positive development of the human capital efficiency while the value added per employee is decreasing. Ericsson and HiQ have during 2006 had a decrease in both values.

A comparison has been made with the thesis of Englén and Wikstrand (2008) concerning Hennes & Mauritz and Ericsson. The result of their thesis regarding structural capital will either confirm or reject our results.

We will analyse the selected factors, how the companies work with these and how they are related to the value creation and the human capital efficiency.

5.2 HiQ

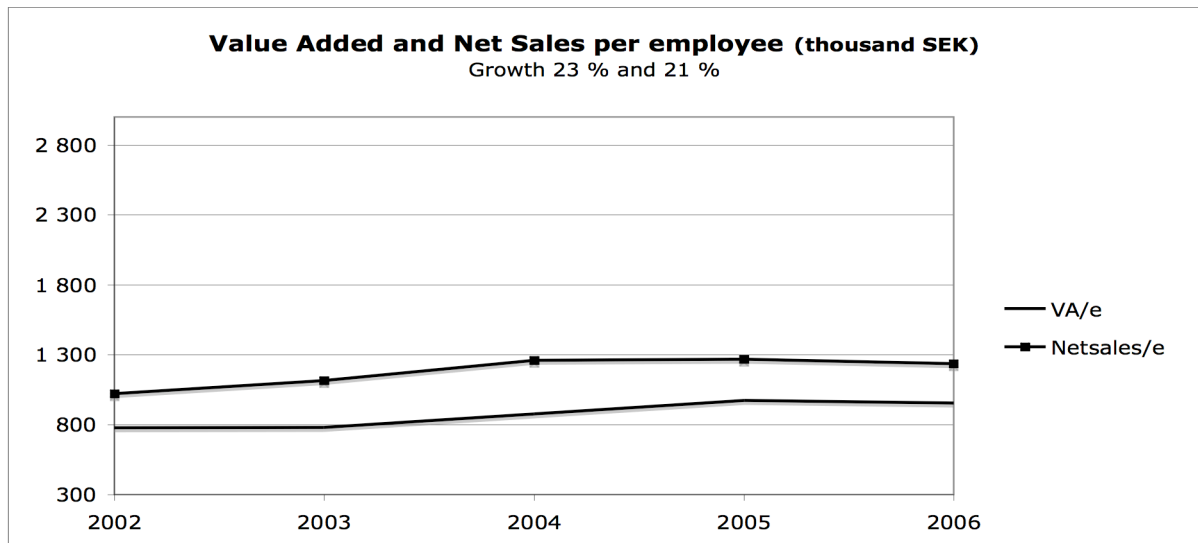


Figure 5:1 Value added and Net Sales per employee at HiQ.

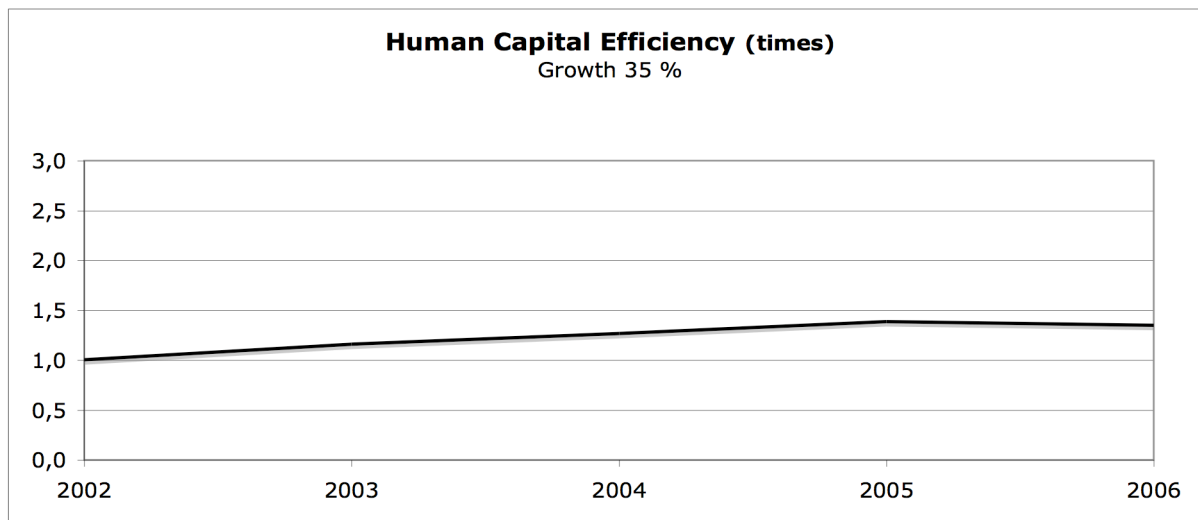


Figure 5:2 Human Capital Efficiency at HiQ.

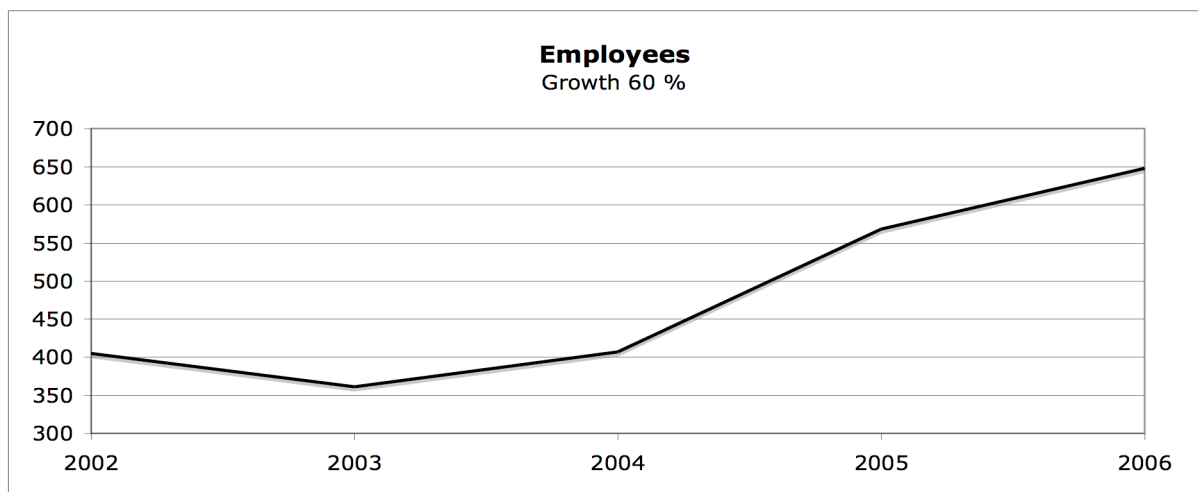


Figure 5:3 Employees at HiQ.

As illustrated in the charts above HiQ had from 2003 to 2005 an increase in both net sales and value added per employee. At the same time it has had a large increase in newly recruited employees and a continuous improvement in the human capital efficiency. As we can see HiQ had a human capital efficiency that initially was 1.0 in 2002. This means that all the value created by the employees was needed to cover its employee costs and is probably one explanation to why the number of employees decreased from 2002 to 2003. HiQ has improved their human capital efficiency with 35 percent during the five years and even though the value of 1.35 is still quite low it can be explained by the fact that the company is operating in the consultancy business.

At HiQ the employees are the company's only assets and the created value is mostly used to cover salaries since they do not have for example costs for research and development or production cost. According to Stewart's theory (1997) the employees at HiQ would be placed in the right hand quadrants since they create high value. According to the interview with HiQ it is difficult to find and replace the employees. This can be questioned whether it depends mostly on the market situation today or if the employees possess certain skills. We think that the employees at HiQ should be placed in the lower right hand quadrant as we believe that it is the current situation in the labour market that makes it difficult for HiQ to replace their employees and not because they are hard to replace as individuals.

Stewart (1997) believes that companies should have employees that are difficult to replace and creates a high value in order to become true assets. We believe that from HiQ's perspective as a consultancy firm it is most optimal to have employees that are easy to replace and creates high value in combination with a strong structural capital. We mostly believe this because the consultancy business is strongly affected by the business cycle and consultants tend to identify with their profession instead of the organisation and can easily switch jobs. Therefore we believe that the structural capital is a decisive factor in order to keep the knowledge.

Since HiQ has a flat organisation there are not any career opportunities and according to the interview HiQ do not have any education plans. Instead of having a career within the company HiQ consider it to be more important that the consultants have a career at the client. By encourage their consultants to always do a little bit better and stand out from other consultants it creates an atmosphere where they are encouraged to constantly develop. This is

further confirmed by Leitner (2007), who believes that work environment and socialisation is of greater importance than career opportunities.

One reason to why we believe that HiQ do not focus on education is because the employees are easy to replace and the knowledge is not company-specific. Education would probably be seen as an expensive investment and do not guarantee a high return so why invest in it? It can also depend on the fact that the employees already are well educated and have the right skills. Instead HiQ invest in their employees by having social activities that create commitment and engagement in hope to keep their employees within the company.

For HiQ it is important that the employees meet as much as possible and that they have a lot of activities that will strengthen the socialisation. We think that this is HiQ's approach when it comes to transfer knowledge between employees and increase the value creation. This interaction, as Nonaka and Takeuchi (1995) calls socialisation, simplifies the capturing and transferring of knowledge. By creating a special company spirit where individual knowledge constantly is transferred into organisational knowledge through socialisation HiQ makes sure that the knowledge will be kept within the company. The fact that many of the social activities include their customers increases HiQ's customer capital and together with the ability to capture the knowledge this strengthens the structural capital.

According to Drucker (1998) employees are loyal to a profession and not a company. The loyalty and commitment to a company that once existed has today diminished. HiQ works a lot with intrinsic fulfilment as well as recognition. Factors that Davenport (1999) states are of great importance to increase the return on the employees. This is one way for HiQ to increase the value created by their employees and also strengthen the commitment to the company.

HiQ do not have an internal labour market and the company is expanding and therefore dependent on an ongoing external recruitment process. HiQ is well aware of the fact that it is difficult to recruit employees with the right skills and therefore its reputation and image is of great importance. We believe that the strong focus on social activities and creating a good working environment is HiQ's way to deal with the difficulties when it comes to recruiting.

HiQ's values have been decreasing from 2005 to 2006. This might mean that HiQ had an optimal level regarding the number of employees between 2004 and 2005 or it can be a result of the time it takes for new employees to adapt and start creating value. HiQ's value added per employee is greater than its net sales and this is a positive indication of the fact that the

company has found a good approach with a strong focus on work environment and socialisation. This also encourages the transfer of knowledge and increases commitment. The fact that HiQ has a strong focus on the relation with its customers strengthens its value creation in a long-term perspective.

5.3 Sweco

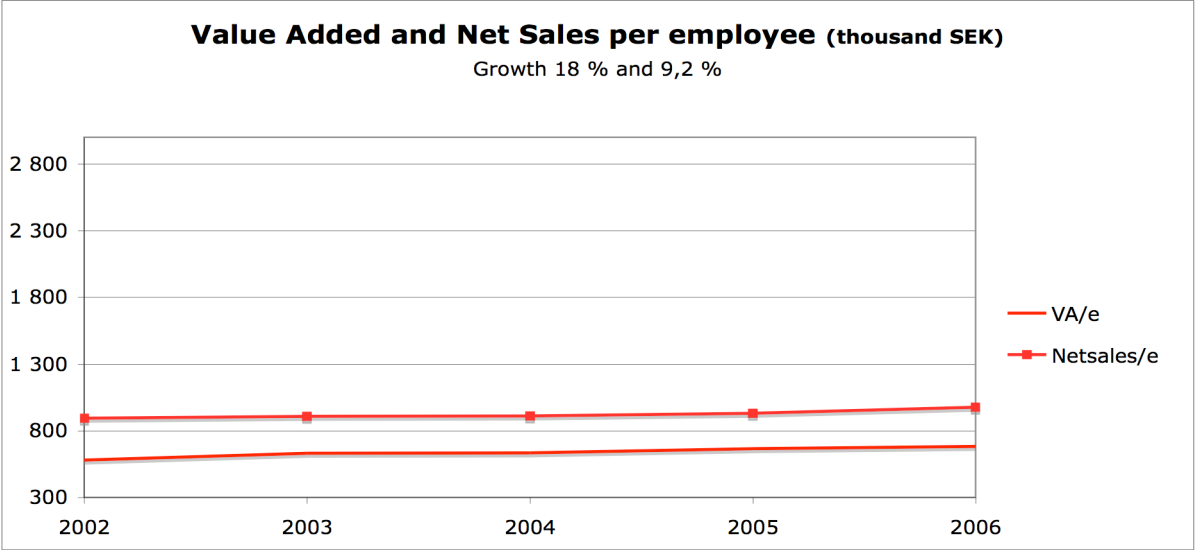


Figure 5:4 Value added and Net Sales per employee at Sweco.

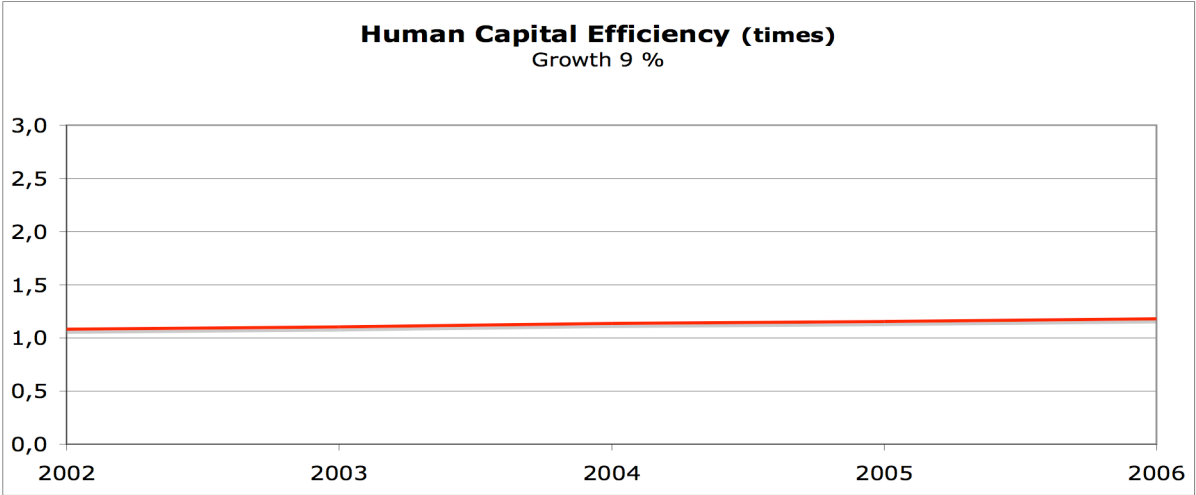


Figure 5:5 Human Capital Efficiency at Sweco.

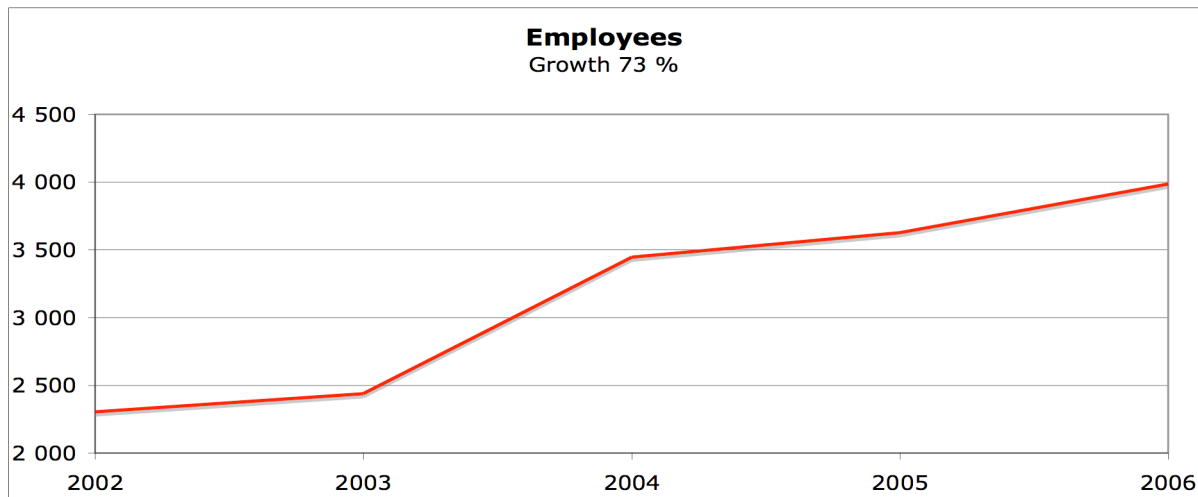


Figure 5:6 Employees at Sweco.

Sweco has a continuous increase in both net sales per employee, value added per employee and human capital efficiency. This increase is however very low and therefore Sweco has to find new and better ways to create value. Sweco's value creation is not high compared to HiQ, which also acts in the consultancy business. Despite the increase in the human capital efficiency the value is still quite low and most of the value created is needed to cover employee costs.

One explanation to the low level in human capital efficiency could be the high salary level in the business area. The fact is that Sweco has a lower salary level compared to HiQ and therefore the human capital efficiency ought to be higher than HiQ's. However this is not the case and Sweco's value is lower since they do not create far as much value as HiQ.

Sweco has almost doubled the number of employees, which should according to us have increased the value added per employee even more. However a big increase has not happened yet. Between 2003 and 2004 Sweco increased the number of employees with about 40 percent but we find it strange that the effect of this increase is not yet shown in the value creation. Normally it takes a while before a new employee starts creating value but since it has been more than two years since the high increase in number of employees it is obvious that Sweco has major problems with their value creation.

Sweco has a high staff turnover of about 17 percent and according to Davenport (1999) a high staff turnover is an indicator for a low commitment to the company. A high staff turnover might also affect the transfer of knowledge in the company because it takes a while before the

knowledge can be replicated and redeployed. Sweco do not see their high staff turnover as a problem and it is an effect of the current economic growth. We question this statement since the other companies do not have far as high staff turnover.

In a company like Sweco, which consists of subsidiaries operating in different business areas and where we believe the corporate culture is not very strong it is difficult to feel committed and identify with the company. Normally the employees in consultancy firms do not meet very often and to create an organisation that the employees can identify with is important in order to create shared values. Culture and core values have proven to be essential for a company's success and Leitner (2007) believes that it is not possible to build up a cultural team when the team members constantly change. As Handy (1995) points out there has to be continuity and some sense of belonging to the company. This could also be an explanation of why the value added per employee is not as high as it ought to be. An additional way for Sweco to strengthen the socialisation is to work more integrated and over the borders. Job rotation and interaction could also help Sweco to create an atmosphere where tacit knowledge eventually becomes explicit knowledge. This will in turn increase the structural capital, which could help Sweco to increase their value creation.

We believe that Sweco's low value added per employee is partly a result of its high staff turnover in combination with the fact that it takes a while before an employee starts to create value. Sweco faces difficulties in capturing and sustaining the human capital and transfer it to structural capital. We are not questioning their customer capital however we believe that their organisational capital is quite low, especially their process capital since they operate in many different business areas. We believe that operating in many different business areas and having a high staff turnover makes it difficult to create routines and processes and therefore the process capital is low. The fact that Sweco has problems with transferring and sustaining their knowledge creates a negative circle where the cost of the knowledge is greater than the utility.

We believe that Sweco could increase their value creation by focusing more on the factors that according to Davenport (1999) increase the return on the invested human capital. First of all they could try to create a more challenging environment. From the interview we experienced that it was the employees own responsibility to choose work tasks and in what department they wanted to work in order to develop their skills. We believe that the employees easily can become comfortable with their situation and they might need

encouragement to job rotation in order to develop. On the other hand Leitner stated that working with the same duties for a long time increases productiveness. However in Sweco’s case we question this because even if the employees develop and specialise their knowledge this will not be transferred to other employees since there is no job rotation. Social activities, which are a part of the intrinsic fulfilment is something that Sweco could put more emphasis on. We believe that some recognition in terms of appreciation and encouragement is important for the employees to feel motivated and this is something that has worked very well for HiQ.

Sweco is the only interviewed company that indicates a continuous positive development in the two measurements. We think that Sweco’s customers act in more stable business areas compared to HiQ’s customers for example. Even if Sweco does not create as much value as HiQ the demand is more constant and probably not affected by the business cycle to the same extent. If Sweco wants to grow in the future we believe that they have to work with increasing their value creation by investing more in their human capital in terms of intrinsic fulfilment and by strengthening the culture. By doing this the employees will hopefully be more committed to the company, the staff turnover will probably decrease and it would create an atmosphere where transfer of knowledge will be encouraged.

5.4 Ericsson

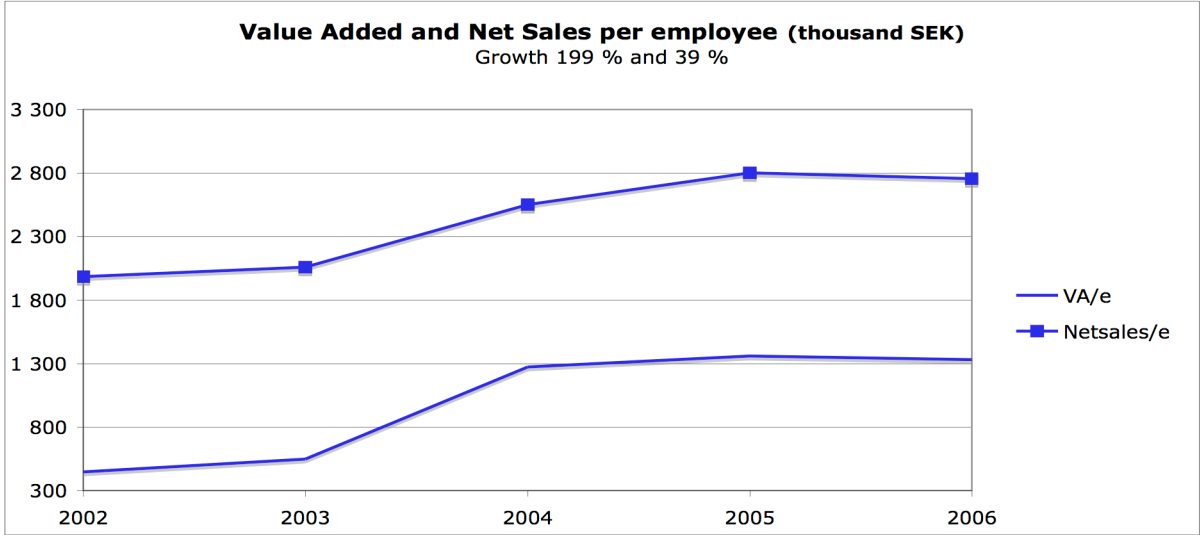


Figure 5:7 Value added and Net Sales at Ericsson.

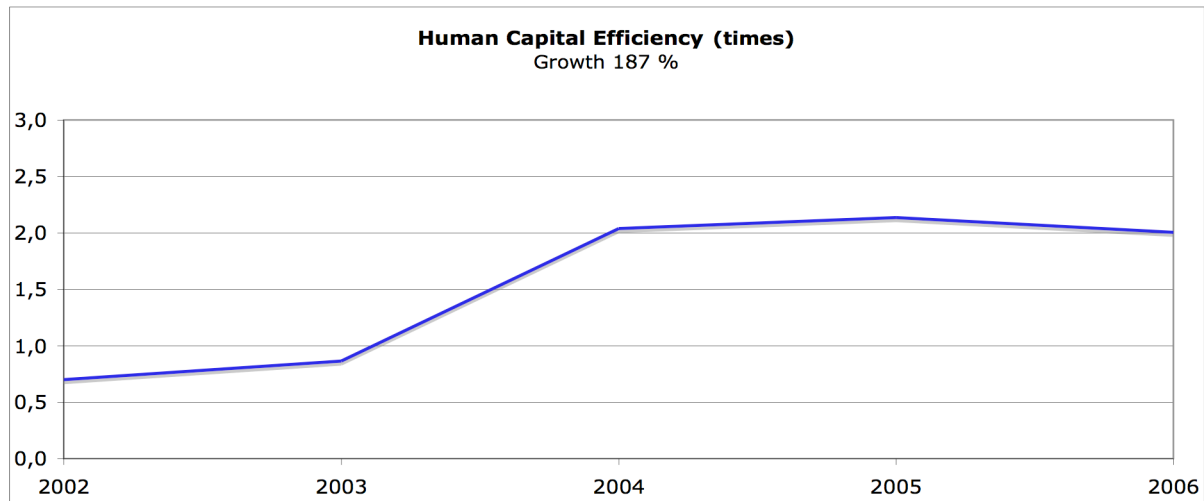


Figure 5:8 Human Capital Efficiency at Ericsson.

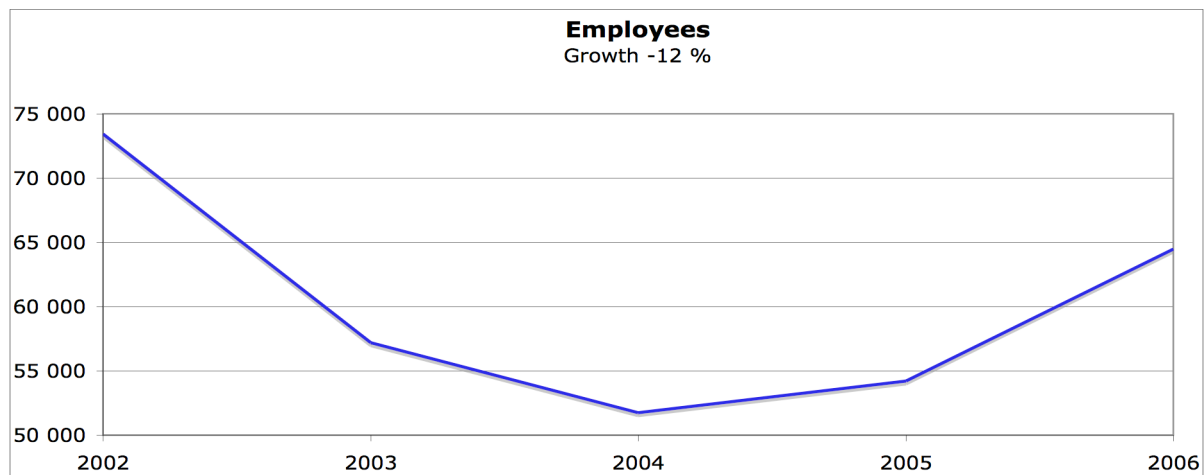


Figure 5:9 Employees at Ericsson.

Ericsson's number of employees decreased substantially from year 2002 to 2004 while the human capital efficiency and the value added per employee both improved very strongly. During 2002 and 2003 the value that Ericsson created was not even enough to cover the cost for their employees. One explanation to these low values could be that the salary-level was too high and they had too many employees in order to create value in an efficient way. Another explanation could be that Ericsson did not know how to capitalise the value created by the employees; in other words the structural capital was low. It is impressive to see that the value added per employee has grown with almost 200 percent compared to net sales per employee, which only has grown with 39 percent. The human capital efficiency has improved with 187 percent during this period and this is a far better improvement than in the other

companies. Ericsson's human capital efficiency was 2.01 in year 2006 and that is considered to be a good value. This good value mostly depends on the high value created by the human capital and not as in Hennes & Mauritz's case the low salary level. We believe that Ericsson's employees create a high value and they are hard to replace since they possess company-specific knowledge.

We believe that Ericsson has gone through a period with extensive changes where they have fired many employees and this resulted in a higher value creation. This also led to the company becoming more efficient and new competence was brought into the organisation. The change probably resulted in that many departments merged which made processes more efficient and in turn strengthened the structural capital. In other words we do not agree with Leitner who states that the structural capital has a negative effect on growth and profitability for innovating firms. We rather believe that Ericsson found ways to improve their human capital by recruiting younger employees and that the re-organisation strengthened their structural capital.

Ericsson uses both external and internal markets for recruiting employees. Ericsson points out the importance of having a well working internal labour market that encourages employees to job rotation but also an external focus with ongoing recruitment. We believe that having a well working internal labour market is a way for Ericsson to allocate their human capital in order to optimize it. Ericsson's recruitment of external consultants can be explained by the fact that they, as a high technology company often are in need of employees with specific skills. As Kakabadse et al (2001) points out external employees are sometimes needed to increase the circulation of knowledge, which probably is a decisive factor for Ericsson's research and development department where a lot of specific knowledge is needed. If Ericsson can capture and integrate the knowledge from the consultants and combine it with the existing knowledge it will be able to keep the knowledge when the consultants leave.

We think that using consultants is a good way for Ericsson to find new and company specific-knowledge. Since the business is quite sensitive to the business cycle this places Ericsson in a better position because they can easily decrease the number of consultants. However the recruitment of consultants for only a shorter time period is not always the most optimal approach for a company. Ericsson has to be aware of that there is a risk that the culture will be damaged and the values and norms will be overlooked.

Even though it is more difficult for a company like Ericsson, where the employees possess company-specific skills, we believe that Ericsson has found a good approach in how to transfer the knowledge. They try to use employees who possess certain skills as much as possible in various contexts such as holding presentations and meetings. This was according to Nonaka and Takeuchi (1995) a good way to spread explicit knowledge and as we believe a way for Ericsson to keep the knowledge in the company. Ericsson also states the value of spreading enthusiasm in order to create a good atmosphere.

Ericsson has a well working career and education system to make sure that there are possibilities for the employees to develop. Much effort is put on creating a good and strong relationship between the employee and the manager of the department. This probably creates a security for the employee as they feel included in the decision-making process and therefore feel that they are of greater importance. This will create committed employees and increase the loyalty to the company. In turn this will increase the employees' investment of the human capital, which will generate a higher value creation.

Since 2004 we can see a tendency towards stabilisation of both the value added per employee and the human capital efficiency. This can be an indication of the fact that Ericsson has reached their optimum when it comes to the number of employees. Recruiting more employees might not increase the value creation and we believe that it is of more importance for Ericsson to strengthen their process and organisational capital.

We think that Ericsson has a huge potential in its human capital and it is more a question of how it should strengthen the structural capital in order to optimize it. In the comparison with the thesis of Englén and Wikstrand (2008) our assumption that Ericsson possesses a strong human capital and a lower structural capital was confirmed. This is also strengthened by Ericsson's volatile development since a strong human capital creates a higher risk than a strong structural capital.

It is much more important for a company like Ericsson to have a high value added per employee compared to the other studied companies. This because the fact that the product lifecycle is very short and therefore there is a constant need for innovation. We believe that the high value added which Ericsson achieved in 2006 will lead to an increase in their net sales in a long-term perspective.

5.5 Hennes & Mauritz

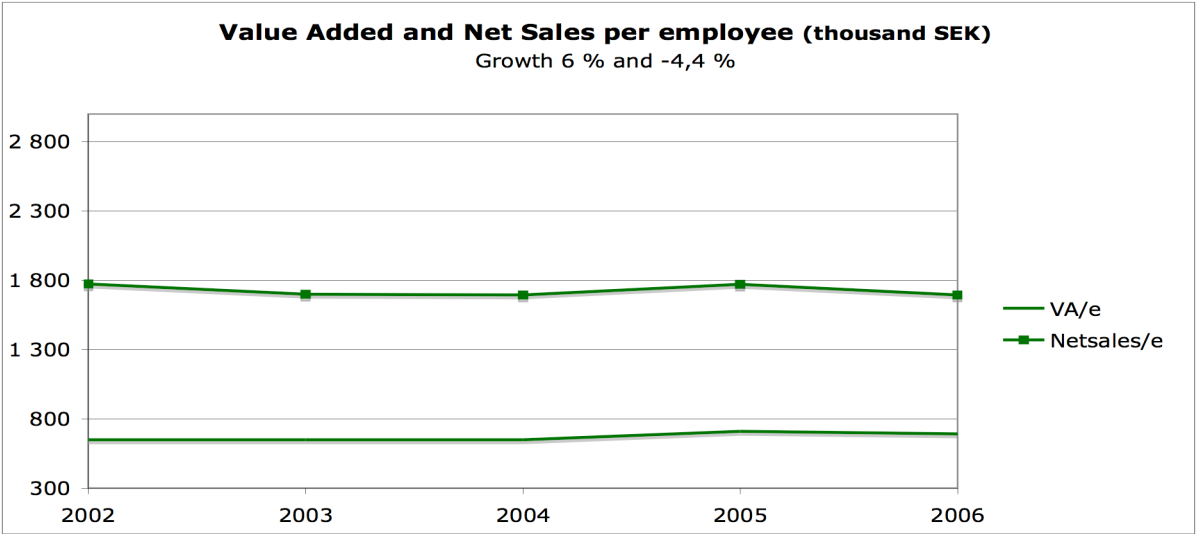


Figure 5:10 Value Added and Net Sales per employee at Hennes & Mauritz.

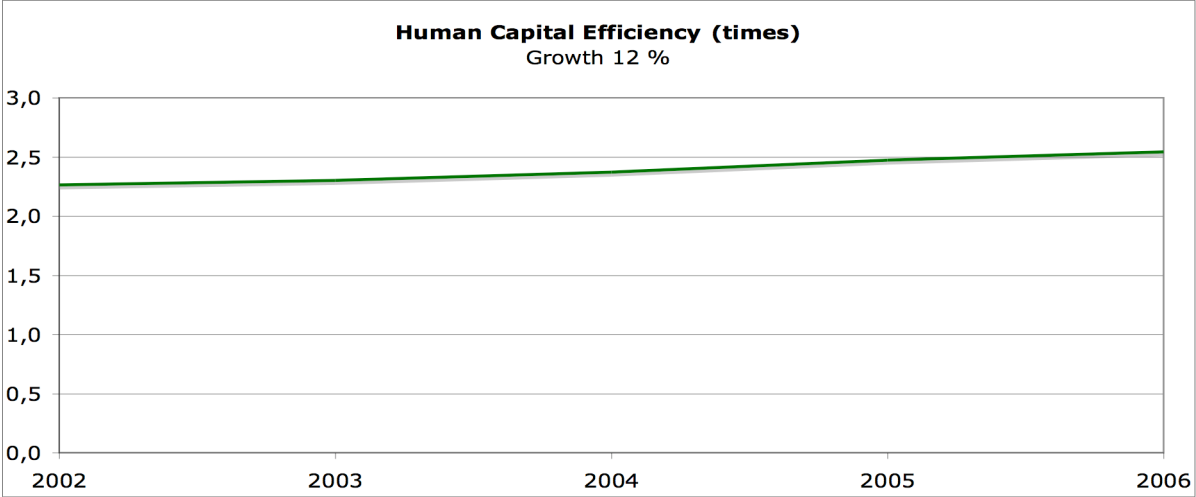


Figure 5:11 Human capital Efficiency at Hennes & Mauritz.

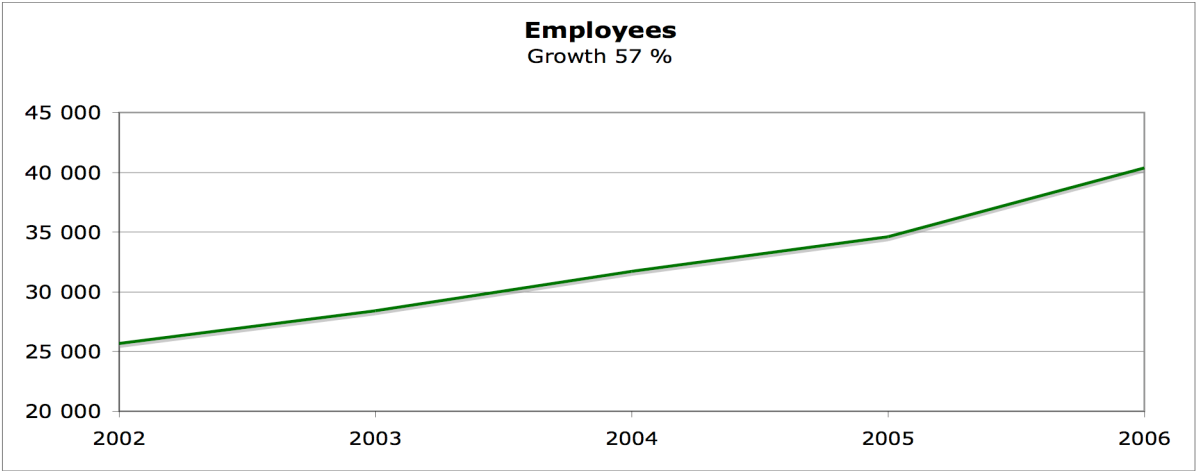


Figure 5:12 Employees at Hennes & Mauritz.

Hennes & Mauritz's value added per employee and net sales per employee has been rather stable during the five years. The value added per employee has increased by six percent since 2002 and the net sales per employee have decreased with 4.4 percent. Our opinion is that it would be more difficult for a company like Hennes & Mauritz to increase their value added per employee than it is to increase their net sales per employee. This especially since their value added per employee already is considered high for a company where the majority of the employees do not create much value. Most of the employees at Hennes & Mauritz are working in the stores and are not the main resources behind Hennes & Mauritz value creation compared to the other companies.

Hennes & Mauritz's main concept is to minimize costs and offer relatively cheap products. The company also has the advantage of economies of scale, which has a positive effect on the value creation. This also lowers the costs and simplifies routines and results in strengthening the structural capital. We believe that Hennes & Mauritz is placed in a difficult position when it comes to increase the value creation further because they have already minimized their costs as much as possible and an increase in price would be against their concept.

We are surprised that there has been an increase in the value added per employee and a decrease in net sales since the company has had a high growth in opening of new stores. The expansion would according to us increase the net sales whereas the value added per employee should be more difficult to increase since Hennes & Mauritz needs to recruit new employees. We believe that this is an indication of that Hennes & Mauritz has a strong process and organisational capital and also the fact that they have a strong culture which makes it possible for Hennes & Mauritz to take advantage of their employees capabilities and knowledge directly. We also believe that this is an indication indicating that the human capital is less important at Hennes & Mauritz.

The human capital efficiency has during the period improved by 12 percent and the value creation is twice as high as Hennes & Mauritz's cost for the employees. Because the majority of the employees at Hennes & Mauritz do not create much value and can easily be replaced their salary level is rather low. The fact that Hennes & Mauritz has the highest human capital efficiency out of the companies is not strange since the salary level is low in relation to the value created in the company. This is also an indication of the fact that Hennes & Mauritz's high value is a result of a strong structural capital.

Despite the fact that the human capital is not as important for Hennes & Mauritz as it is for the other companies it has a relatively high value added per employee. The value added is higher than Sweco's where the human capital is of much greater value. In other words we believe that the value is created due to a strong structural capital.

We believe that if our opinion that Hennes & Mauritz do not possess so much human capital is correct the company would stay stable because the value will not disappear if the employees leave the company. However, a recent event in the stock market showed the opposite where Hennes & Mauritz's stock fell with as much as 7.5 percent. This event is against our first assumption stating that Hennes & Mauritz should be stable because of their high value in organisational capital; in terms of a skilled management and process capital. Although we do not believe that Hennes & Mauritz's fall in the stock market is related to their structural capital. Instead it is an effect of the volatile business area, which is sensitive to negative signals in the market.

Hennes & Mauritz focuses a lot on internal recruitment and as we understood from the interview it is important to recruit a person that has that special "Hennes & Mauritz personality". Hennes & Mauritz has a well-developed internal labour market and offers its employees development and career opportunities. Positions within the company are often filled internally and a lot of new graduates are recruited at "ground-level". We believe that since Hennes & Mauritz offers a lot of career opportunities they increase their employees' investment of human capital. Growth opportunities, recognitions and intrinsic fulfilment are very present at Hennes & Mauritz. Employees truly identify and want to develop with the organisation.

Since Hennes & Mauritz has a well-functioning internal labour market there is a small risk that it will miss out on the advantages of an external perspective in terms of obtaining new knowledge. However the company has a certain level of staff turnover in order to "renew" the human capital. Our opinion is that out of all the companies Hennes & Mauritz is the one that has the most developed internal labour market, which helps them allocating the human capital in a better way. We think that Hennes & Mauritz has a too strong focus on the internal perspective (Hansson, 2005), this can be an explanation to why their values have been stable for a long time and do not increase more.

The corporate culture at Hennes & Mauritz is extremely important and as Alvesson (2002) has mentioned this is a very important factor for optimizing the human capital. When new

stores open there are always Swedish employees present because it is of great importance for Hennes & Mauritz to spread not only knowledge but also to make sure that the culture will be incorporated. Since the personality of the employees and the culture is important at Hennes & Mauritz the employees will probably develop a loyalty based commitment. Experience and individual knowledge will easily be transferred to organisational knowledge since the culture creates routines and pervade the entire organisation.

From our analysis Hennes & Mauritz is characterized by a low human capital and a high structural capital. This is confirmed by the result of Englén and Wikstrand's (2008) thesis, which indicated that Hennes & Mauritz has strong structural capital that has resulted in relatively stable values.

It is quite impressive that Hennes & Mauritz manages to have a higher increase in value added per employee than in net sales per employee. But we think that having values that are too stable can result in a security and that the company does not realise the need for growth or renewal. Maybe it is not always optimal to fill vacant positions internally and to recruit someone with experience from another business area might increase the creativity.

5.6 Massive Entertainment

Massive is in a quite special situation when it comes to the human capital and work environment. The employees see their job as more of a hobby and lifestyle. This is confirmed by the low staff turnover and the fact that the employees have to be encouraged and reminded to take vacations. Massive's employees are placed in the upper right hand quadrant in Stewart's model (1997) and they create a high value and every individual is difficult to replace. Unlike the other companies we believe that Massive do not have to put much effort on how to motivate their employees. According to Davenport (1999) the intrinsic fulfilment is important in order to increase the return on the investment in the human capital. In Massive's case the management do not have to put emphasis on this factor since it is already achieved by itself.

Massive's employees identify themselves with the company and have a strong attitudinal commitment to the organisation. This is the opposite of what Drucker (1998) states about employees being more and more committed to their profession and not to an organisation. Recognition is another factor that is also of great value according to Davenport (1999). There

is no doubt that this is a factor that Massive works a lot with. The appreciation that comes along with a successful game or a certain design and being a part of the company behind it is one of Massive's best ways to reward their employees. When an employee creates something successful he or she will always receive compliments and respect from colleagues. This is an excellent way to inspire and increase the motivation level even more. All the employees work towards a common goal, which is to achieve a triple A-game. This goal creates an atmosphere where the human capital is constantly taken to higher levels.

The high interest in their job creates an atmosphere where socialisation and shared experiences are present. The main factor behind the transfer of knowledge is likely to be the genuine motivation among the employees. Leitner (2007) states this to be one of the most important factors in order to spread the knowledge. According to Leitner (2007) there has to be a win-win situation when it comes to sharing knowledge. In Massive's case the employees are striving towards the same goal and therefore an environment where knowledge is likely to be shared is accomplished. We believe that Massive's employees are extremely good when it comes to sharing experiences and knowledge with each other. On the other hand we are not sure if the organisation has developed a structural capital that is strong enough and can capture the knowledge. We are looking forward to following Massive's development in value creation since we believe that they have found a good approach when it comes to optimizing the human capital. According to us the only obstacle could be if the structural capital becomes too strong and restrain the innovation spirit.

5.7 Summary

Combining the results from our measurements and the interviews we have found that each company has developed their own approach when it comes to creating value. From the results of the value added per employee and human capital efficiency we found that the factors we chose to examine affected the optimization of the human capital in different ways and some factors were more explicit than others. In table 5:13 we show what factors our analysis has proved to be most distinguished for each company. The arrows do not indicate the last year's value creation since many of the companies have experienced lower values. Instead they indicate our opinion of their approach when it comes to optimizing the human capital and creating value.



Value creation



Transfer of Knowledge

Investments in social activities have increased the value creation.

Not much focus on job rotation and socialisation result in difficulties increasing the value creation.

Using employees' specific knowledge in various contexts to increase the value creation.

A genuine interest and strife towards a common goal increases the value creation.

Recruitment

Have created a good reputation since it is highly dependent on external recruitment.

A good mix of receiving external and developing internal knowledge increases the value creation.

An internal labour market decreases the renewal process that results in difficulties creating value.

Staff turnover

A high staff turnover results in difficulties to create value.

Development

Strong relationship and development at the customer increase the value creation.

Strong internal labour market with career opportunities and education increases the value creation.

High degree of recognition and encouragement increases the value creation.

Figure 5:13 Summary of analysis.

6 Coming Home

Our journey has come to an end and in this chapter we will present our conclusions and what we have learnt. There will be a discussion about what we could have done differently if we would make this journey again. The chapter will end with questions which have been raised during our journey and that we would like to ask the companies.

6.1 Conclusions and What We Have Learned

When writing our analysis we learnt that there is not only one answer to our purpose. How companies optimize the human capital are highly dependent on the business area it operates in and how important the human capital is to the company. However we found that the factors we chose to examine differs in importance.

Staff turnover and recruitment are the factors that we think affect the optimization of the human capital the least. These factors are to some extent not in the companies' control. We believe that a company's staff turnover is not a direct factor when it comes to optimizing the human capital. If the values are extreme and far from what the company desires it becomes a direct factor affecting the optimization negatively. The company's goal when it comes to staff turnover depends a lot on how company-specific the knowledge is and how easy the employees are to replace. We believe that staff turnover is a factor that affects the transfer of knowledge between employees and the company's possibility to capture it. In the introduction we raised a question whether permanent jobs and internal careers are history. What we learnt from our analysis is that a high staff turnover is not desirable since it creates difficulties to capture and transfer knowledge. We have also learnt that commitment and engagement is of greater importance than we first thought. Our answer to the question above is that they are not history and we rather believe that it will be the opposite in the future.

Recruitment has a small effect on the optimization process and is more about how and where the company chose to find their human capital. The recruitment process is very company-specific and some companies prefer to have an internal labour market while others focus on a combination between internal and external recruitment. HiQ for example can not combine these and is totally dependent on external recruitment. We believe that external recruitment is

an indirect factor when it comes to affecting the optimization of the human capital. However an internal recruitment has a direct affect since it is a tool for the company to develop the employees and allocate the human capital to where it will be most optimized. In the introduction a question concerning if companies' culture and core values will be damaged by too much focus on external recruitment was raised. We believe that in a short-term perspective it could strengthen the optimization if the company is good at integrating the knowledge. However we think that this optimization will not be sustainable in a long-term perspective. This since we believe that strong culture, shared values and an internal labour market together with some renewal is a better way to affect the optimization.

We found that development is of great importance when optimizing the human capital. Employers need to be aware of the importance in providing the employees with opportunities to develop. However this development does not have to be in forms of career opportunities. We believe that it is important for the individual to develop personally and focus does not always have to be on increasing the knowledge. One of the most crucial factors if development should be a way to optimize the human capital is that there has to be a genuine interest and also identification with the company.

Regarding the final factor transfer of knowledge we believe that this is the most important factor but also the most difficult one to affect and control. We believe that job rotation and social activities are factors that the companies can focus on in order to try to affect the transfer of knowledge. Companies should create an atmosphere that represents shared values and experiences and this will result in the sharing of knowledge as well. The transfer of knowledge will also increase if the employees enjoy their work, motivate each other and strive towards a common goal. We believe Massive is a good example of this. We think that the transfer of knowledge is a factor that affects the optimization of the human capital in a direct way.

We have found that the factors mentioned above affect the optimization of the human capital in either a direct or an indirect way but they are not the most decisive ones. Instead we have found other aspects that are of greater importance.

We think that a company can not optimize the skills and knowledge of the employees by only having a strong human capital. The optimization depends on the relation between the company's structural and human capital where the decisive factor is the organisational capital. In order to take advantage of a strong human capital the company needs to have a well

functioning organisational capital. From our analysis we came to the conclusion that the factors we chose to analyse has either an indirect or a direct affect on the human capital. But if these factors, especially the ones with a direct affect, should be in the companies control there has to be a well functioning organisational capital. The organisational capital affects all four factors but when it comes to staff turnover and external recruitment we believe that these also affect the organisational capital. This means that it is the company's organisational capital that manages and determines to what extent the four factors affect the optimization of human capital.

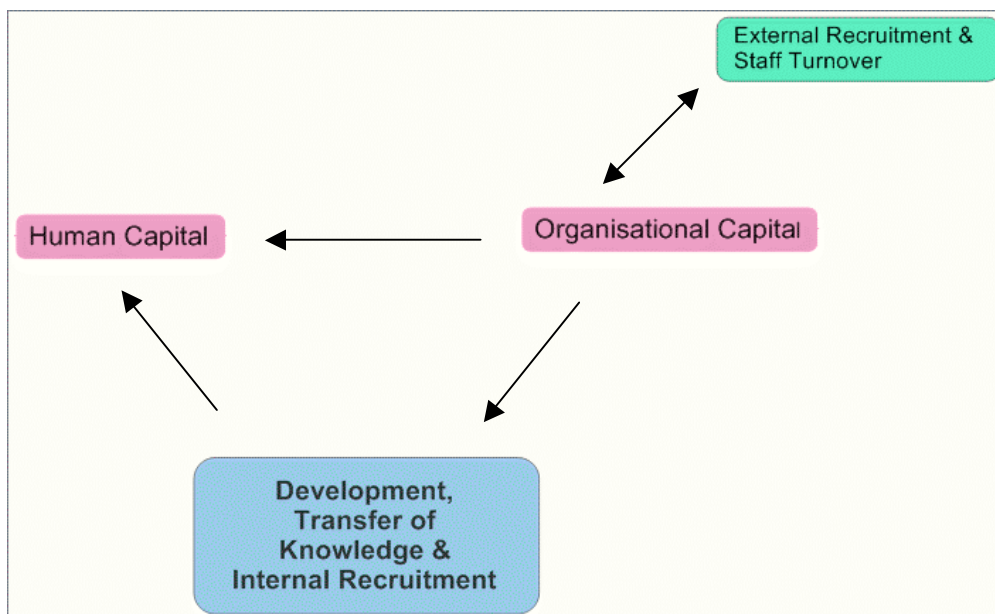


Figure 6:1 The relation between the factors and the optimization of Human Capital.

6.2 What Could We have Done Differently?

Even though we have put a lot of time and effort on this thesis there are some things we could have done differently. First of all it would have been interesting to receive comments from the companies about their values. Therefore it would have been a good idea to calculate the values before conducting the interviews and it might have given us another perspective of the factors affecting the values. The interview with Leitner was conducted after the interviews with the companies and maybe our questions might have been different if we would have received his perspective on our topics before we interviewed the companies.

Calculating the measurements was difficult and more time consuming than we first thought and perhaps we should have put more effort on analysing the companies annual reports to find other measurements that would have been easier to calculate. There are other ways of

calculating the value added according to Edvinsson (2008) which would have given us a different results. The definition made by Affärsvärlden consists of figures that have been adjusted therefore it might have been better to base the calculation on the gross margin. Unfortunately the figures needed to calculate gross margin differed between the companies and due to time-limit and our knowledge in accounting we chose to base the calculation on operating profit.

It would have been interesting to conduct interviews with not only representatives from human resources but also employees with other positions. By only interviewing one selected department we might receive information that could be biased. It would also have been interesting and valuable to study the companies' development and specific market events due to macro factors during the selected time period. This would probably have given us a deeper understanding for the development of the values in the companies.

From the beginning the idea was to make a comparison with another thesis regarding structural capital. The comparison between the two theses only considered two companies and did not turn out the way it was intended to. Now in retrospect we think that the selection of companies was not the most optimal and the communication between us and the writers of the other thesis could have been better.

6.3 Questions and New Journeys

While writing this thesis we have come across a lot of interesting questions and reflections. The questions are issues that the companies could consider and the reflections could be considered as new journeys for others to do. The questions will be asked to three different stakeholders; management, owners and employees.

6.3.1 Questions

HiQ

- *How can HiQ grow without losing the HiQ-spirit and their reputation?*
- *Is HiQ's structural capital strong enough to be considered as a safe investment?*
- *How safe are the employees if there is a recession?*

Sweco

- *For how long will Sweco survive with a value creation that more or less cover the cost of employees?*
- *Who wants to invest in Sweco where there is no high return and seemingly not a successful concept?*
- *How does the high staff turnover affect the employees and the work environment?*

Ericsson

- *Why does the stock-market not reflect Ericsson's value creation?*
- *Who dares invest in Ericsson where the human capital creates opportunities but also an uncertainty?*
- *Are the employees at Ericsson creating enough value to secure future innovations and growth?*

Hennes & Mauritz

- *How can the management improve the values and why has the cooperation with famous designers and new concepts not increased the value creation?*
- *Why invest in Hennes & Mauritz that does not seem to show any ability to innovate?*
- *How can the employees become more valuable to the company?*

Massive

- *How can the management transfer the employees' high motivation into profit?*
- *Why not invest?*
- *Can the strife to achieve triple A-games create a too competitive climate between the different teams?*

6.3.2 New Journeys

As we mentioned before time aspect was an interesting factor that we considered to look closer at. It would be interesting to examine what companies think about over time and how this affects the employees. In some companies a new approach has developed where the employer forces the employees to only work a certain amount of time and some have even introduced a four-day working week. While in some other companies it is almost taken for granted that the employees should work at least 60 hours a week. How this affects the employees in terms of effectiveness, motivation and the value creation would be an interesting journey to explore.

We have read many theories and articles that state that employees tend to give their loyalty to their profession and not to the organisation. Writing this thesis has given us another opinion and we believe that the commitment to an organisation is more important than some researchers have stated. We believe that working long hours, switching jobs and only focusing on having a career is no longer as important as it once was. Having an employer that shows consideration for the employees, where working environment and socialisation are of importance is according to us of greater value today. We believe that identification with the company will create an inspiring environment where the employees are encouraged to share knowledge and experiences. This is also a subject that we think could be an interesting new journey.

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Appendix



**EKONOMI
HÖGSKOLAN**
Lunds universitet

Appendix 1 Questionnaire

How many employees are working at the company?

What is the average age of the employees?

How many employees have permanent employment?

How does the company perceive the work market? Is it difficult to find the right employees?

Development

What development and career opportunities does the company offer its employees?

Is it common with job rotation? Is it considered to be better if the employees work within the same department or change departments?

What is the company-philosophy when it comes to educating the employees or recruiting external staff that already possesses the right skills?

Recruitment

Does the company recruit mostly internally or externally?

What advantages and disadvantages comes along with either internal or external recruitment?

Transfer of Knowledge

How does the company do in order to capture the knowledge of its employees?

How does the company work with the transfer of knowledge from one employee to another?

If the company uses consultants, is there a risk that the knowledge will not be integrated?

What is the company's opinion about this?

Staff turnover

What is the company's staff turnover? Has it increased or decreased lately?

What is the company's goal for staff turnover?

Is it considered to be positive or negative with a high staff turnover?

Is there any difference regarding staff turnover between different departments within the company?

Questionnaire

Dr Karl-Heinz Leitner

What is your opinion on the correlation between human and structural capital?

How can companies capture the value of the human capital?

Is structural capital overrated? Are there differences between companies?

What are the advantages and disadvantages of recruiting externally or internally?

Statistics indicates that staff turnover is increasing. Is this negative for the optimization of companies' human capital?

When it comes to career opportunities and development, how do you think companies can use this to optimize the human capital?

What is your opinion when it comes to the transferring of knowledge between employees?

What is your opinion about social activities and work environment in companies? Is it important in order to optimize the human capital? why?

Which measurements do you believe measure the human capital in the best way?

What do you think about the measurements value added per employee and human capital efficiency?

Do you believe that companies will be more aware of the importance of the human capital in the future?

Appendix 2 Calculations

Hennes & Mauritz

Year:	Operating profit:	Depreciations:	Employee costs:	Employees:
2006	15 298 000	1 624 000	10 973 000	40 368
2005	13 173 000	1 452 000	9 934 000	34 614
2004	10 667 000	1 232 000	8 685 000	31 701
2003	9 223 000	1 126 000	7 945 000	28 409
2002	8 259 000	1 051 000	7 373 000	25 674

Growth:

57%

HiQ

Year:	Operating profit:	Depreciations:	Employee costs:	Employees:
2006	154 878	5 830	458 477	648
2005	148 326	5 324	398 845	568
2004	49 497	25 830	281 805	407
2003	12 947	26 304	241 959	361
2002	-23 000	23 810	313 805	405

Growth:

60%

Sweco

Year:	Operating profit:	Depreciations:	Employee costs:	Employees:
2006	361 000	55 300	2 308 800	3 986
2005	271 600	51 300	2 086 200	3 626
2004	208 600	49 100	1 921 400	3 445
2003	96 800	47 600	1 394 970	2 437
2002	95 200	4 100	1 236 600	2 305

Growth:

73%

Ericsson

Year:	Operating profit:	Depreciations:	Employee costs:	Employees:
2006	35 828 000	7 244 000	42 823 000	64 486
2005	33 084 000	6 073 000	34 458 000	54 195
2004	26 706 000	6 886 000	32 356 000	51 742
2003	-11 239 000	6 332 000	36 264 000	57 182
2002	-21 299 000	7 149 000	46 871 000	73 420

Growth:

-12%

Value added:	VA/e:	Netsales:	Cost/employee:	Netsales/employee	HCE:
27 895 000	691,02	68 400 000	271,82	1694,41	2,54
24 559 000	709,51	61 262 200	286,99	1769,87	2,47
20 584 000	649,32	53 695 000	273,97	1693,80	2,37
18 294 000	643,95	48 237 700	279,66	1697,97	2,30
16 683 000	649,80	45 522 300	287,18	1773,09	2,26
67%	6%	50%	-5,3%	-4,4%	12%

Value added:	VA/e:	Netsales:	Cost/employee:	Netsales/employee	HCE:
619 185	955,53	801411	707,53	1236,75	1,35
552 495	972,70	720523	702,19	1268,53	1,39
357 132	877,47	512882	692,40	1260,15	1,27
281 210	778,98	403000	670,25	1116,34	1,16
314 615	776,83	413800	774,83	1021,73	1,00
97%	23%	94%	-8,7%	21,0%	35%

Value added:	VA/e :	Netsales:	Cost/employee:	Netsales/employee	HCE:
2 725 100	683,67	3 894 700	579,23	977,09	1,18
2 409 100	664,40	3 372 200	575,34	930,01	1,15
2 179 100	632,54	3 141 400	557,74	911,87	1,13
1 539 370	631,67	2 211 400	572,41	907,43	1,10
1 335 900	579,57	2 062 700	536,49	894,88	1,08
104%	18%	89%	8,0%	9,2%	9%

Value added:	VA/e:	Netsales:	Cost/employee:	Netsales/employee	HCE:
85 895 000	1 331,99	177 783 000	664,07	2756,92	2,01
73 615 000	1 358,34	151 821 000	635,82	2801,38	2,14
65 948 000	1 274,55	131 972 000	625,33	2550,58	2,04
31 357 000	548,37	117 738 000	634,19	2059,00	0,86
32 721 000	445,67	145 773 000	638,40	1985,47	0,70
163%	199%	22%	4,0%	39%	187%