

MASTER THESIS

WHAT WORKERS WANT –

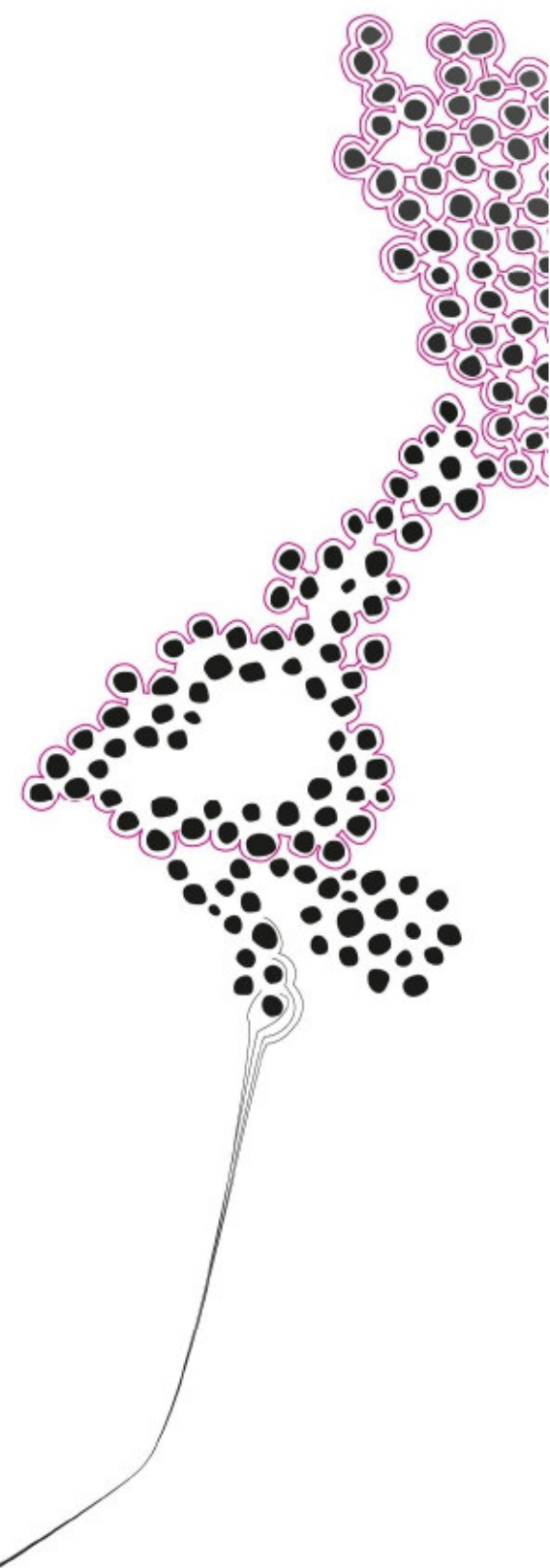
A bottom-up approach to employer branding.

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WHAT WORKERS WANT

Abstract

In times of shortages of skilled labor in the informatics sector, organizations are striving for the status of employer of choice. But what does that incorporate? And are the factors for assessing companies actually relevant to the much needed talent? In order to gain insights into the factors relevant to the actual knowledge workers, this study uses a bottom-up approach to employer branding. In five focus-groups, consisting of information technology employees or students of informatics, data concerning attraction and retention were gathered and later coded. The findings include a list of relevant factors as well as the main realization that not one factor makes or breaks a job, but that the decisions to take or stay in a job are based on the outcome of an individual consideration of a multitude of environmental, organizational, psychological, and social factors. Further research should try to organize the vast terminology into a holistic view of the decision processes and consider that the specific factors have to be assessed individually and within the specific situation.

Keywords: Employer branding, attraction, retention, talent, focus-groups, information technology, shortage of skilled labor, coding.

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1 Introduction

If you are good at something never do it for free. - Albert Einstein

There is no substitute for talent. Industry and all its virtues are of no avail. - Aldous Huxley

Although both men are great minds of the previous century, the expressed views still hold true for our modern world – maybe now more than ever. In our globalized world, talented, well-trained professionals know of their value in times of shortage of skilled labor and are, just as Albert Einstein requested, asking for something in return – a great place to work.

The job market has changed considerably in the past century. And with this change the awareness rose that employees are not a disposable good, but a major – if not the most important – resource a company has (Pfeffer & Veiga, 1999; Chew & Chan, 2008). Especially in technological productions and the IT sector, the need for skilled labor is already high today and is to grow in the years to come (Bundesagentur für Arbeit, 2013). The growth of the technology and information technology sector, paired with the aging society and lack of young talent to take the places of the retiring baby boomer generation, makes for a highly competitive market for employers. In this context the phrase “war for talent” was minted (Chambers, Foulon, Handfield-Jones, Hankin, & Michaels, 1998) which reflects the severity of the problem that a lot of organizations face today when looking for an adequate addition to their team.

It seems obvious that in this environment it is essential for employers to attract and retain good personnel. Not just because the demand is growing and the supply is scarce, but also because turnover costs are high and have been underestimated in the past (Blake, 2006). The answer to the question of how employees can be attracted and retained has been approached in different ways. Many scholars argue that fair pay and care for employees is what it takes to attract talent (Capelli, 1999). Others believe that for example corporate

social responsibility (CSR) activities can lead to a better reputation that makes the organization more attractive to all kinds of stakeholders, including potential and current employees (Sen & Bhattacharya, 2001). There are several other factors identified in human resources (HR) approaches (Honeycutt & Rosen, 1997; Chew & Chan, 2008; Hiltrop, 1999; Yeo & Li, 2011; Agarwala, 2003; Ferris, Hochwarter, Buckley, Harrell-Cook, & Frink, 1999) and total rewards studies (Rumpel & Medcof, 2006; Kaplan, 2005; O'Neal, 1998; Zingheim & Schuster, 2001; Gross & Friedman, 2004; Kochanski & Ledford, 2001), some of which are included in the theoretical framework.

When looking at those approaches, one also has to consider employer branding, which can incorporate many of those factors in a practical framework. It has its basis in branding literature, but is to date more of a practical approach than a field of study (Backhaus & Tikoo, 2004; Love & Singh, 2011). So far, employer branding has been somewhat of a trial and error approach in HR management, thus companies trying to recruit and retain employees by positioning themselves as an employer of choice through different HR practices. One of the established listings of employer brands is the Fortune magazines' best employer ranking. Many, especially large, companies strive to make that list, which is based on survey results of participating companies. Although being on the list might help the employer brand by offering visibility and a stage for presenting the company, and making the list was even found to correlate with share prices (Schulte, Hauser, & Kirsch, 2009), it only offers a benchmarking approach. This means it considers factors referred to as 'best practices' which are often adapted from successful companies' human resources management (HRM). However, the implicit suggestion that there is a universal remedy to gaining competitive advantage through mimetic behavior has been rightfully questioned (Paauwe & Boselie, 2005). Also, those best employer studies (BES) have further faults with just being result-oriented and the tendency to bypass the employees' opinion leading the way.

So, instead of looking at the results of companies that do well and conjecturing that it has to do with how they treat their staff, this study will start at the bottom by looking into existing approaches to job choice processes and including the (prospective) staff's opinion on what they are looking for in a good employer, in order to find out whether the existing approaches actually have the needs of the target group in mind. To figure out what it is that the target group actually is looking for, the research questions are kept broad in order to allow for any possible answer. Thus, the respondents are asked what factors, to them, play a role in the attraction and retention of employees. This specific stakeholder point of view is a new lens for the growing area of employer branding and can show managers and researchers alike what workers actually expect in return for their much-needed talent.

This thesis initially offers an overview of the theoretical framework relevant to the topic of employee attraction and retention, concluding with the research questions that this study addresses. Next, the method of data collection and analysis is explained. Chapter four shows the results of this research by highlighting the identified factors and corresponding examples as well as offering a chronology of the decision processes. The subsequent discussion links those findings to existing theory, aims to answer the research questions and offers implications for practice and research. The thesis is then concluded by a recapitalization of the most important aspects of this study.

2 Theoretical framework

As discussed above, it is essential for companies working in fast-paced societies to have an edge over their competitors (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005). However, with the process of globalization it has become increasingly more difficult to gain such an edge because many traditional sources of competitive success, such as technology, financial structure or competitive strategy (Pfeffer & Veiga, 1999), “are less powerful than they once were” (Pfeffer, 1994, p.10). This led to the birth of an approach that, in contrast to other sources of competitive success, takes somewhat longer to implement – a successful human capital strategy. Pfeffer and Veiga (1999) argue that if a company looks beyond the next quarterly figures the return on investment (ROI) that can be achieved through managing people in a way that makes them feel content and motivated in their jobs is higher than the ROI on other changes, such as outsourcing or process optimization. However, they also point out that implementing a successful strategy for managing people takes time and a comprehensive strategy.

2.1 People strategy frameworks

Especially in times of shortages of skilled labor in several technological fields - with software development experts being one of the most needed employees these days (Bundesagentur für Arbeit, 2013) - a successfully implemented people strategy can help to distinguish a company from competitors. A people strategy is defined as “ a strategy, with its underpinning policies and processes, that an organization develops and implements for managing its people to optimal effect” (Gratton & Truss, 2003, p. 74). To understand the underlying principles of this concept it is important to look at the spectrum of terminology that emerged on this topic. The most common frameworks that deal with managing human capital are human resource management (HRM), strategic talent management (STM) and employer branding and slight deviations thereof. Although those terms and the

corresponding literature seem to differ at first glance, when looking closely a main goal can be identified: attracting and retaining adequate personnel.

While human resources is typically used as a term for a function that strives to manage a company's employees by using certain strategies for e.g. recruiting, training and motivating professionals, and the practices themselves (Hiltrop, 1999), it usually is hallmarked by a tendency to generalize, since HR often busies itself with implementing best practices that are said to be universally applicable, because they have been used by successful firms (Hiltrop, 1999; Joo & McLean, 2006; Cox, Mann, & Samson, 1997). Another issue is that these strategies are only seen next to each other without any interactions (O'Neal, 1998). Also the HR approach mainly refers to internal processes and seldom includes the communication of such factors to stakeholders outside the organization, thus failing to communicate with potential new employees outside the scope of job interviews.

Some strategic management scholars argue that talent management is a concept that is more strategic than HR, since it incorporates depicting pivotal roles in a company, filling those from an internal or external talent pool (Collings & Mellahi, 2009), and developing new and current workers as well as attracting skilled workers for a company (Mandhanya & Shah, 2010). Others just use the term as a new synonym for human resources (Lewis & Heckman, 2006).

The last of the common people strategy frameworks is employer branding, which - similar to HR and talent management - is aimed at attracting and retaining employees. However, employer branding is based on branding literature and therefore it encompasses more aspects, such as marketing and communication, in addition to the HR processes. The employer branding framework is comprehensive in that way that it includes HR practices, adding an essential benefit that many HR approaches neglect: it is tailored to a specific company and within this scope incorporates a broad variety of factors as well as the

presentation and communication thereof. This makes the employer branding framework the broadest of the aforementioned and therefore the theoretical basis for this research, since it can be used as a hypernym for relevant human resource practices and further applicable aspects like person-organization fit and job embeddedness theory. The connections between the addressed termini can be found in figure 1.

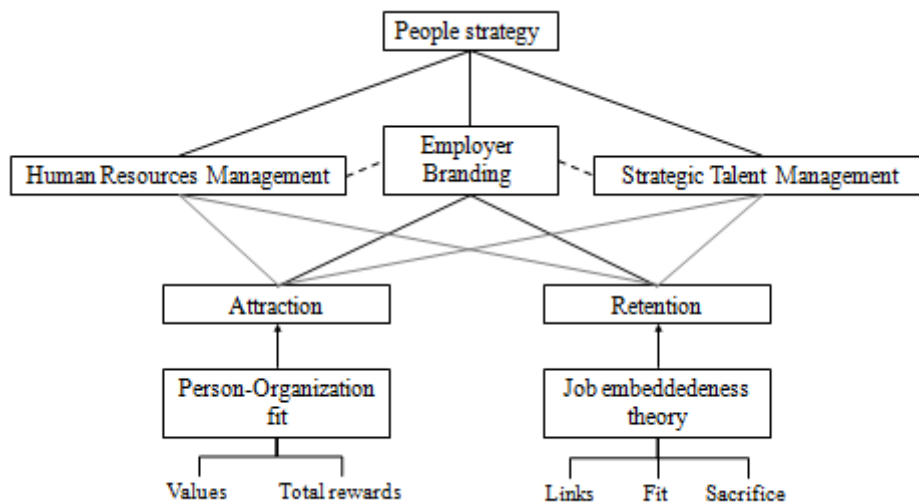


Figure 1. Terminology flowchart. This figure shows the connections between the termini relevant in this study.

Legend: — = part of the concept above, - - - = includes similar concepts, — = part of the concept above, but not used in this research, —> = influences.

Employer branding as a framework and relevant aspects for attraction and retention are discussed in the following.

2.2 Employer branding

The concept of employer branding is, as the name suggests, based in branding literature. In a nutshell, branding uses the inherent need of people to categorize the information around them. Humans in general need categories in order to efficiently process the multitude of information they are presented with every day (Mielke, 2000). Just like every person places information in categories by highlighting some aspects and neglecting others (Degner, Meiser, & Rothermund, 2009) marketing experts depict certain features of a

product while not mentioning others in order to form a customer's idea of a product – a brand (Blackston, 2000). For an employer brand this means a company should apply traditional marketing principles to achieve the status of an Employer of choice (Sutherland, Torricelli, & Karg, 2002). Within these marketing principles, like working out unique selling points (USPs) or communicating the desired image, HR practices make up a big part because they are part of the big picture that is or should be communicated to stakeholders. The main issue for an employer brand, as with every brand, is to distinguish oneself from the others, as the figure adapted from Schumacher and Geschwill (2009) shows.

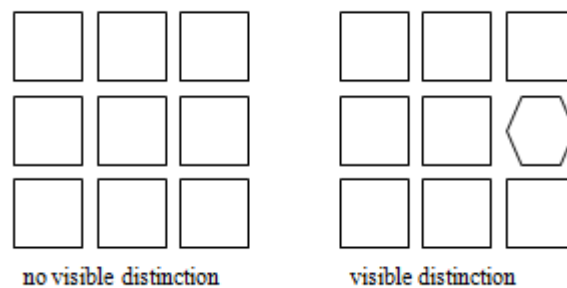


Figure 2. Visibility through differentiation (cf. Schumacher & Geschwill, 2009). This figure illustrates the concept of differentiation, which is key to employer branding.

This visibility can be achieved by communicating the factors that are believed to attract staff. Still the aspects that are highlighted as USPs have to be clear and true (Schumacher & Geschwill, 2009), since the proposed brand promise builds the basis for the mutual relationship with the employee, also often referred to as a psychological contract (Rousseau, 1998). Right along these lines, Lloyd (2002) defines employer branding as “the sum of a company's efforts to communicate to existing and prospective staff that it is a desirable place to work” (p.65). As this definition suggests, employer branding encloses two main themes: employee attraction and employee retention. So, although there is general agreement that a strong brand itself adds value to a company (Aaker, 1991; Kim, Kim, &

An, 2003), the main purpose of having a strong employer brand is to attract and retain the best personnel. These aspects are discussed in the following paragraphs.

2.2.1 Employee attraction

The concept of employee attraction refers to the process of a company appealing to a potential employee in a way that leads to the prospective hire wanting to work for said company. To understand this process, which, if successful, leads to a higher employer brand equity, it is important to address factors that play a role in this context and how they are connected. The framework most frequently used to explain job choice processes like attraction and retention is person-organization (P-O) fit. This is discussed in detail in the following.

Person-organization fit

Supporters of this theory argue that the perceived fit between an individual and an organization is a key factor in an applicants decision process (Morley, 2007; Kristof, 1996) and also leads to longer tenure, greater organizational commitment and better job performance (O'Reilly, Chatman, & Caldwell, 1991). For this perceived fit it is essential that a potential applicant gathers initial information about an organization to help him to assign an identity in order to be able to compare it with his own. The assessment of rewards associated with the job, sometimes called attractors (Amundson, 2007), including issues like organizational practices and pay, and values, categorized into extrinsic, intrinsic, altruistic, status-related, freedom-related and social (Cennamo & Gardner, 2008), that characterize the organization, typically builds the basis of the fit.

Values. Researchers argue that since values are enduring and guide peoples' actions they are the most important aspect with regard to P-O fit (Cable & Judge, 1996). With the recent and predicted demographic changes those values are often discussed in a generational context, because according to some researchers there are significant differences between the baby boomer generation that is about to retire and the Generation Y that is the “young

talent” in the labor market (Montana & Lenaghan, 1999). Although it seems desirable to cluster generations in terms of values to be able to reach a bigger group of prospective employees, Giancola (2006) argues that “the generational approach may be more popular culture than social science” (p.33). In fact, papers on this issue often seem prejudiced, painting the baby boomers as idealistic, driven and valuing personal social interactions while Gen Yers supposedly are result-oriented by any means necessary, want to take the fast-track to leadership, rather use mediated communication than talk to a colleague face-to-face (Glass, 2007) and do not commit long-term (Martin, 2005). So while it still needs to be resolved whether those kinds of generalizations really are justified, there certainly is agreement that values are the main basis for P-O fit (O'Reilly et al., 1991).

Total rewards. Although values are said to be important for P-O fit, they are not really tangible factors when it comes to attraction. Other factors, that implicitly hold certain values, like flexible working hours being an indicator for family friendliness, should be taken into consideration, because they are more tangible and therefore easier to view for a potential employee. Such visible factors are often discussed in the scope of the total rewards framework. It is argued that in order to attract and retain staff a holistic overview of advantages for the employee should be offered and communicated by the organization (O'Neal, 1998). This overview, often referred to as the employee value proposition (EVP), is supposed to include all the factors that entice and keep employees (Schumacher & Geschwill, 2009). From a branding position, the EVP should be seen as an option to define a company's strengths and use them as USPs towards potential and existing talent as opposed to implementing ideas of others in form of best practices. Several factors that can be incorporated into such an EVP have already surfaced in research. Kantor and Kao (2004) give an extensive overview of rewards that can be incorporated within an EVP (see table 1).

Table 1

Rewards available through work and the workplace identified by Kantor and Kao (2004).

Direct Financial	Work	Affiliation
Base salary	Autonomy	Athletic leagues
Bonus	Casual dress policy	Community involvement
Cash profit sharing	Challenging work	Diversity programs
Stock programs	Constructive feedback	Employee celebrations
Employee referral program	Covered parking	Employee clubs
(cash rewards for successful hires)	Ergonomic/comfortable workstations	Professional associations
Suggestion program (cash for ideas)	Flexible work schedules	Seminars
Indirect Financial	Free parking	Spring and holiday parties
Adoption assistance	Interesting work	Support groups
College saving plan	Job skills training	Volunteer connection
College tuition and fees	Modern, well-maintained workspace	Other/Convenience
Commuter reimbursement (pre-tax)	Open communication	ATMs onsite
Company cafeteria	Performance management	Car seat vouchers (for newborns)
Company store	Promotion opportunities	Carpooling/van
Dependent care	Safe work environment	pooling/shuttles
Dependent scholarships	Suggestion program (no cash reward)	Child care resources
Discount tickets	Telecommuting opportunities	Credit Union
Educational assistance	Uniforms/uniform allowance	Employee assistant program
Fitness facilities discounts	Workshops	Employee card and gift shop
Health and welfare benefits	Career	Expectant parents program
Incremental dependent care (travel)	360° skills assessment	Legal services
Insurance via payroll deduction	Career advancement	Medical center
Long-term care insurance	Coaching	Military deployment support
Matching gifts	Lunch-and-learn series	Online services
Relocation program	Management development	Onsite food services
Retirement plan(s)	Mentoring program	Onsite flu shots
Saving Bonds via payroll	Open job posting	Onsite dry cleaning pickup
Deductions	Pre-retirement counseling	Personal travel agency
Scholarships	Service awards	Wellness program
Stock purchase program	Training and development	Worldwide travel assistance
Student loans		
Tuition reimbursement		

Although table 1 offers many reference points for potential rewards, some of the displayed factors might not be applicable in Germany, like college saving plans because, for example, there are no tuition fees comparable to the ones in the US. Also, the variety shown indicates that even more factors are imaginable as the needs of employees shift.

It is important to mention that the EVP that is used to attract employees needs to be true, since it builds the basis for the psychological contract that is entered when the employee starts working for the organization (Rousseau, 1989). This psychological contract will be object to scrutiny during the employment, a breach leading to dissatisfaction and potentially turnover of the employee (Robinson, 1996).

Limitations of P-O fit. While P-O fit can be helpful to assess whether there is a match between individuals and an organization, especially when trying to explain turnover, it can only be used to compare characteristics and explain outcomes in terms of attraction. It should also be mentioned that one P-O fit study is seldom like another, because the categorizations that are used vary (Kristof, 1996) and therefore only shine a light on those categories that the researcher deems important, possibly leaving aspects that employees deem important in the dark. It is a framework that does not help detect new aspects of the employee attraction or retention process, but it shows that the potential employee's perception is of utmost importance to the attraction process. So in order to fill this framework with an exhaustive overview of relevant factors, this research focuses on peoples' needs and opinions and uses an exploratory approach to employee attraction.

2.2.2 Employee retention

Employee branding incorporates another main goal next to attraction, namely employee retention. This concept refers to the objective of keeping existing employees in their current company and the efforts taken to achieve this aim.

Although there is a lot of research on employee turnover, thus the reasons why people leave a job, research on why people stay in a job is still scarce (Hausknecht, Rodda, & Howard, 2009). A relatively new concept to understanding employee retention that takes into account a variety of different aspects is job embeddedness theory, which is structured into three major factors: links, fit and sacrifice, and discussed below.

Job embeddedness theory

Job embeddedness theory is a framework that is based on three major constructs. The relationships an employee has are described as links, then there is the fit between a person and the job, the organization and the community, and the third factor comprises what an employee would have to leave behind when changing a job, thus the sacrifices he would

make (Mitchell, Holtom, Lee, Sablinski, & Erez, 2001). All factors within those three categories make up a sort of web woven around the employee, making it harder to leave a current position (Mitchell et al., 2001). It is a rather broad framework that includes personal factors as well as those within the organization (Zhang, Fried, & Griffeth, 2012) and that can be understood in depth by incorporating other theories that match the three major constructs of job embeddedness. An overview of the factors links, fit, and sacrifice follows.

Links. The concept of links includes all relationships an employee has. This includes family and friends as well as coworkers and other members of the community (Mitchell & Lee, 2001). Mitchell and Lee (2001) also argue that the mere presence of links has an influence on keeping an employee in his job, more links resulting in a higher embeddedness. Next to lowering turnover costs, links within an organization can also have a positive effect on innovation. Rost (2011) uses network theory to show that strong ties at work, thus close relationships to coworkers, paired with relatively open structures are the perfect breeding ground for innovation. Although the number of links a person has is not directly influenced by an organization, there might be possibilities to foster such relationships. Therefore, understanding the links of potential employees and the corresponding expectations can be essential to building a successful employer brand.

Fit. The concept of fit as described by Mitchell et al. (2001) as part of the job embeddedness theory is similar to the one discussed above. Apart from values, the researchers say, career goals and plans for the future have to match the organizations culture and the job itself. Just like the concept of links, Mitchell et al. (2001) also add the private aspect to the concept of fit, arguing that people also evaluate their fit with a community and their environment. They suggest that the better the overall perceived fit, the more likely it is that an employee stays with an organization. It has to be said, however, that this perceived fit will not always be like the initial one discussed as part of the attraction process. One has to keep in mind that when a person enters an organization a psychological contract is

established that essentially is “a two-way exchange of perceived promises and obligations“ (Guest & Conway, 2002, p. 22). Everything an employee learns about an organization and its environment he will compare to his own beliefs and values as well as to this psychological contract, which in itself will be adapted during the employment (Hiltrop, 1995). So, next to values, career goals and plans for the future, the expectations that an employee holds are also relevant to the concept of fit, because if the psychological contract is violated the assessment of the company will diminish (Guest & Conway, 2002) and trust will be lost (Hiltrop, 1995), thus changing the perception of an employee and with it the perceived fit.

Sacrifice. This construct is defined as the valued material or psychological benefits that would be lost by changing a job (Mitchell et al., 2001). Those include, but are not necessarily limited to, factors also playing a role in links or fit, like relationships with coworkers. Mitchell et al. (2001) list some factors that might be relevant in this category, including material and psychological benefits. However, they do not claim to have an exhaustive view on relevant factors, but offers a framework for employee retention. That is why more research is needed to fill this framework with life.

2.2.3 Link between attraction and retention

A look at previous research shows that the factors that are relevant to attraction might not be exclusively relevant to that process. On the contrary, although the terminology does not fully match, the comparison of the retention factors Kochanski and Ledford (2001) found and the major attraction factors that Amundson (2007) identified, clearly shows that several factors are relevant to both attraction and retention.

Table 2

Retention (Kochanski & Ledford, 2001) and attraction factors (Amundson, 2007) compared.

Retention factors identified by Kochanski and Ledford (2001)	Attraction factors identified by Amundson (2007)
Organizational commitment	Relationships
Organization support	Flexibility, Relationships
Work environment	Location
Organization citizenship	Relationships
Variety	Work fit
Challenge	Work fit, Innovation
Autonomy	Responsibility, Flexibility
Meaningfulness	Contribution
Feedback	Recognition, Learning
Advancement	Learning
Personal growth	Learning
Training	Learning
Employment security	Security
Title	Recognition
Benefits	Security
Non-cash recognition	Recognition
Perquisites	
Base salary	Security
Incentives	
Ownership	Responsibility
Cash recognition	Recognition
Premium pay	
Pay Process	

Note. The ten attraction factors found by Amundson (2007) are assigned to the corresponding retention factors as identified by Kochanski and Ledford (2001), thus the multiple mentions of Amundsons attractors.

Table 2 highlights the link between attraction and retention factors. Several other studies recognize this connection as well, although the topics they are published under are as varied as the factors they identify, ranging from employer branding (Berthon, Ewing, & Hah, 2005), via human resources (Hiltrop, 1999), total rewards (Rumpel & Medcof, 2006), and employee value proposition (Kochanski & Ledford, 2001) to psychological contracts

(Kickul, 2001), and factors identifying employers of choice (Chipunza & Kabungaidze, 2012). Still all those researchers identified a variety of factors similar to the ones featured in table 2 and often relevant to more than one category. The highlighted link suggests that a holistic approach to attraction and retention is needed, incorporating both concepts and exploring all factors that might play a role for either or both decision processes.

2.3 Research questions

In order to achieve the needed holistic approach to employee attraction and retention it is important to find out how to successfully cater to the needs of prospective and existing staff. This can only be achieved when the answers of the respondents are not limited by the expectations that the researches hold. Thus, it is necessary to start with a bottom-up approach, which is to say ask the actual talent source what it really wants in a rather open fashion. An exhaustive overview of factors that are relevant to IT professionals is what this research is trying to achieve. For this, two relatively broad research questions were chosen as the main objective for this study, namely

RQ₁: What factors play a role in the attraction of talent in the IT sector?

and

RQ₂: What factors play a role in the retention of talent in the IT sector?

To answer these questions, it is important to look at existing research and compare it with the findings of this study.

3 Method

The objective of this study is to reveal factors of employee attraction and retention that have a distinct relation to reality. In order to achieve this goal, an open-ended data collection method was paired with a coding approach to data analysis. How these research design decisions aid the objective and how those decisions were implemented is discussed in the following subsections.

3.1 Data collection

A qualitative approach was used, in order to answer the aforementioned research questions on employee attraction and retention in a way that provides a new comprehension of the topic. Open-ended interviews offer insights into opinions and ideas of a certain group and therefore are an important step in building a theory that caters to a specific target group. This research strives to gain an exhaustive overview of the factors that the target group of IT professionals actually deems important. That is why focus-group interviews were favored over the more common approach of one-on-one interviews. A focus-groups interactive character animates participants to speak more freely and therefore yields a broader scope of information (Asbury, 1995; Morgan, 1988). It is important, however, to create a comfortable setting in order to ease the tension of an official study setting (Kitzinger, 1995). This was achieved by continuously encouraging the respondents to voice any idea that comes to mind regarding any aspect of the broader topic of attraction and retention and offering them home-made baked goods or a home-cooked meal.

For this research five focus-groups were conducted. In order to gain insights into the opinions of current as well as prospective employees in the field of IT, two groups were comprised of students and three of employees of three different IT firms in Münster, Germany. The students were approached before an informatics lecture and asked to leave their contact information on a sheet of paper if they were willing to participate. A Doodle entry was then used to find dates that worked for most students. The strategy of targeting

employees was different. In this case, the researcher phoned several IT firms in Münster and asked the management for assistance in recruiting respondents that are willing to participate. Several firms immediately denied the request to forward an email to their staff, although it was made clear that the research would not be conducted on company time. The three companies that were willing to ask their employees to participate, however, were really hospitable, all offering a conference room for conducting the focus-group. The student groups were offered a free meal at the researchers house as an incentive, whereas the employees were interviewed in a meeting room in their respective firm and offered a free lunch or home-baked goods with their coffee. The discussions were mainly based on the two research questions, however several subquestions were used as a topic list to offer the respondents a more tangible starting point for their discussion. The main prerequisite for these questions was, that they had to be neutral and open, so they would yield a large spectrum of answers without being suggestive. These subquestions included, but were not limited to the following (Table 3):

Table 3

Selection of subquestions assigned to groups.

<u>Questions</u>	<u>Students</u>	<u>Employees</u>
What factors do people consider when looking for a job?	✓	✓
What expectations do people have towards their (potential) employer?	✓	✓
What factors make for an ideal job?	✓	✓
What keeps people at their current job?		✓
What are their plans for the future?	✓	✓

The sessions were recorded and later transcribed. A full transcription of the data can be found in the appendix.

3.2 Respondents

Between the five focus groups, a total of 24 respondents, ranging in age from 21 to 58 partook in this study. The professionals made up 71% of the respondents, of which 18% were women, the students fill the remaining 29%, with a higher percentage of women at 29%. The mean age of the male employees was 34,5 years, the women in this category were slightly younger on average: 28,3 years. The male students were 24,8 years, whereas the female students were 23 years on average. The ages of the respondents can be found in table 4. All respondents partook voluntarily and in accordance with management.

Table 4

Participants ages by group.

		<u>Male</u>	<u>Female</u>
Employees	Focus group 1	27, 34, 58	27, 28, 32
	Focus group 2	23, 26, 26, 28, 37, 39, 51	-
	Focus group 3	31, 33, 34, 36	-
Students	Focus group 4	22, 23, 24	-
	Focus group 5	27, 28	21, 25

3.3 Data analysis

As discussed above, the goal of this study is to shed light on the theoretical concepts that are relevant to the target group. In addition to the aforementioned data collection technique, this aim can also be facilitated by the use of an appropriate data analysis method. Glaser and Strauss (1967) argue that coding is a process of data analysis that builds the basis for “arriving at theory suited to its supposed uses“ (p. 3), which is the main idea behind grounded theory. Principles of this qualitative data analysis approach were used to analyze the gathered data, thus coding, memoing and comparison. However one aspect, i.e. gathering more data after having analyzed parts of data, has been neglected in this study, because it would have gone beyond the scope of a master thesis to keep collecting data continuously during the data analysis period.

In accordance with the standards established by Strauss (1994) the data was initially coded in an open way by identifying codes and interactions within the codes. These were then abstracted up to the point that key concepts could be derived and then pooled into main categories. The resulting hierarchy of codes, concepts and categories, which can be found in appendix IV, was then used as a coding scheme for the following selective coding process. To make sure that the coding was reliable, an independent volunteer was asked to code 40% of the transcribed interviews – one student focus-group and one employee focus group – with the previously established code book. The found Cohen's Kappa of 0,81 shows that the codes are valid, since according to Mayring (2002) a value above 0,7 is sufficient. The coding processes are needed to abstract the data and to identify interactions that then can be theorized (Strauss, 1994). The main tool for building a theory from the codes, that Glaser and Strauss (1967) name is the process of memoing while analyzing the data. Memos, to them, are notes of concepts that emerge during the analysis of the data. They argue that all theoretical concepts and ideas should be jotted down in order to build a foundation for a theory. This was also done during the analysis of this study. Since not all memos turn out to be relevant and the ones that are are refined into the theoretical concepts that are discussed in the results and discussion section, the memos are not incorporated in this research in order to keep it neat. The last aspect of grounded theory that was used in this research was the concept of continual comparison, which includes that all theoretical ideas found through grounded theory have to be compared to other concepts either found in previous research or within other parts of the data (Verschuren & Doorewaard, 2007). Theoretical concepts found in this research and how they relate to previous findings can be found in the discussion section.

4 Results

The analysis of the material yielded several general findings as well as specific factors that play a role in the attraction and retention processes in the information technology sector. However, since the codes that emerged from the data analysis process are not exclusively relevant for attraction or retention, but often for both, the results are displayed according to the codes that emerged from the data analysis. Thus, the coded findings are placed in five categories in order to get a more structured overview of the results: benefits, organizational culture, work content, professional development and subjective measures. The relevance of each code for the specific research question will be made clear in the discussion part of this thesis. Furthermore, additional findings and stages relevant to the job decision process were identified. The additional aspects and the chronological succession that a prospective employee passes are explained subsequent to the coded factors.

4.1 Identified factors

Although it is important to understand attraction and retention as processes that have different stages, the main issue of this thesis is to extract an overview of the factors relevant to the target group that fill these processes with life. These factors are found in this chapter categorized by the codes and subcategories used during the data analysis. The results were sorted into the main factors benefits, organizational culture, work content, professional development and subjective measures.

4.1.1 Benefits

Benefits are defined as all the advantages a job brings, whether they are monetary, like salary or pension, social, including work-life balance and flextime, or infrastructural, with factors such as environment and logistics.

Table 5

Benefits - codes and number as well as average of respondents' answers per concept.

Concepts	Students' statements		Employees' statements		Included codes
	#	Ø	#	Ø	
monetary	8	1,1	34	2	Salary, bonuses, provision/pension, courtesies/'goodies'
social	19	2,7	55	3,2	Flexible working hours; free time; compatibility of family and work; job security
infrastructural	22	3,1	36	2,1	Logistics; workstation; setting/environment; break options; demand for experts

The number of answers and the included codes per concept can be found in table 5.

What those categories are comprised of in detail is illustrated in the following subsections.

Monetary benefits

In this study, the concept of monetary benefits refers to immediate financial rewards, such as pay or bonuses, eventual financial support, like pensions, but also amenities that only are monetary in the broadest sense of the word, like free beverages or sweets. How the respondents evaluate this concept is shown in the following.

Although there is general agreement that a fair compensation is a basic requirement for a job, this aspect is much more prominent in the employees' answers. Working professionals, in contrast to students, have more specific ideas of the physical benefits they would enjoy. While the interviewed students argue that salary "comes second" to other prerequisites for a job, "salary naturally is somewhat of a base requirement" to them and they do want their paycheck to show that they "have not studied in vain". One student said it "depends on your desperation" what job she would take and that she would probably take a job that does not fully meet her expectations if her choices were limited. So it seems that the bar has to be set according to the present work market. However, their priorities seem to lie elsewhere, since monetary factors were only addressed a handful of times in the students' focus-groups.

While the professionals generally agree that other factors, especially free time and climate, are more important than a high salary, they mention money related factors much more frequently than the students. The tenor of these notions being that “the work has to be rewarded in a fair way”, because they would not want to work “for chicken feed while working endless hours” or “to completely undersell themselves”. They also argue that a “high salary is always tempting”, but that it can never make up for excessive hours like “working 60 hours and having 5 days of vacation per year” or “when the working climate is totally fucked up”. So most people did voice that fair pay is relevant, but not the highest priority.

Apart from salary, the monetary factors that were mentioned ranged from bonuses via pension plans to courtesies. All of those concrete aspects were named by the working professionals with one exception in the bonus-category. One student voiced that “a company car would be nice”, a smattering of professionals agrees, because that way they do not have to “worry about increasing gas prices”, while one objected that he “would be suspicious if they tried forcing a company car on” him, because he believes it to go hand in hand with excessive travel. Another employee that actually has a company car states that he would “rather have taken the job without the company car and instead have gotten the corresponding money that is deducted”, since he goes to work by bike. Thus, there are two camps when it comes to company cars as a bonus. There also was a discord between the employees about whether performance-related pay is desirable. Whereas one respondent argues that getting a reward for good work “would be motivating”, others see this more critical. Either because it just means “taking your raise and spreading it variable”, thus attaching conditions to an otherwise unconditional salary increase or because “it increases the pressure”, which according to most respondents is not desirable. And while the idea of getting a share of the profit intrigues some employees they all agree that they would not

want it at the expense of their base salary. A Christmas bonus on the other hand, although not mentioned very often, achieved acclaim.

Employees also value a good “company pension plan and such things”, especially when the company outdoes their competitors in that category, because they feel valued and taken care of.

The last monetary aspect that has to be mentioned is the courtesies category. It is defined as the small amenities that have a monetary and often social value, but do not make up a significant monetary factor for the employee. Courtesies includes little things like “a bottle of sparkling wine” or a “chocolate Santa” for Christmas as well as providing liquid sustenance in the form of “free coffee” and “beverages”. While the courtesies are valued as an act of kindness towards the employees, respondents agree that free beverages “can be assumed”, thus a lack thereof can lead to disappointment. Although the financial relief for one employee is low, the impact of these small aspects should not be ignored.

Concluding the monetary benefits section it can be said that both students and employees see fair compensation as a factor for a job they would take. Still, once IT professionals work in a job, as can be seen by the way the employed respondents answered to the raised questions, they start looking at pay as a given and concern themselves more with other aspects that in their eyes make or break a good employment. The frequency of answers concerning other benefits and organizational culture were so much higher in comparison, that it suggests the respondents placing their priorities on the less tangible benefits in a job. So the focus of the people seems to lie on the social benefits rather than on the physical benefits they gain from an employment.

Social benefits

Social benefits, in this context, are defined as the formal factors, thus policies or contractual benefits, that positively influence an employee’s social life and social well-

being. This concept is illustrated in the next paragraphs and includes aspects like flexible working hours and job security.

The working professionals are looking for a workspace that offers “family friendly” options, such as flexibility and a decent work-life-balance. One father even states more specifically that “a company kindergarten group would be convenient”. Still, the main focus lies on the two broader topics in this category. Everybody agrees that flexibility in terms of flextime is an advantage of a job, since overtime “can be compensated with free time”. Several take this a step further and say they would like “flexibility in terms of working from home” or argue that “homeoffice [...] is a freedom that I treasure”. While some would like “full freedom” with regard to “time and location” of their work “as long as the target is reached”, others enjoy a little more structure by having to be at the office during “core times”. “Free vacation planning” is another aspect that is demanded. Several respondents agree that “it is important to be able to take longer vacations” instead of “a maximum of two weeks at a time”.

As for the work-life-balance, “too much work and too little vacation” is something that most respondents would decline, because “working sixty hours a week is not pleasant”, since it does not leave much time for family and friends. While most people have no issues with occasional overtime they feel that if “overtime is mandated and there is no compensation whatsoever it is an absolute no-go”. Also respondents want a clear distinction between work time and home life, especially in terms of “explicit working hours and overtime regulations”, but also when it comes to traveling or “an excessive amount of calls during private time”. The data also shows that employees that already have settled in Münster enjoy “to be stationary and not having to travel across the country”. So where most professionals say that it is “a dealbreaker” to “just be on the road during the week” or to “rush over the autobahn and never be at home for the next ten years”, some of the students and isolated employees without family can still imagine to “travel around, see the world and

maybe go to conferences on the weekends”, “move to Berlin or something in a heartbeat” or “even go abroad”. In this context it is especially interesting that all students add a time limit to their willingness to travel for work, because they argue that they eventually want to “settle down”, “commit and stay somewhere”.

Although these aspects are also valued highly by those respondents that do not have a family, the extent to which these factors play a role in the job decision process “depends on whether one has a family or not”. Especially the willingness to travel or to move for a job seems to be highly correlated with changes in private life. It can be helpful for a company to adapt to those changes in order to retain their employees in the long term. Employees go through “different life stages” and “sometimes want to work a little more, sometimes a little less. And when an employer offers something like that or when one can address that without being resented for it, it is worth a lot”.

While the respondents want flexibility within their day to day business, they also expect an overall feeling of “security for the future” from their employer. To many this means unrestricted contracts, because the “fear of not being employed further” leads to “really bad work climate”. Others feel secure when “the company is growing” and they do not have to worry about “going someplace else”. In general it can be said that students as well as employees appreciate the option of staying with a company long term, especially if a company recognizes different life phases and allows its employees to adapt their work load to them.

Infrastructural benefits

The concept of infrastructural benefits is defined as the advantages that the physical aspects of a company offer, including aspects on the macro as well as the micro level. It incorporates all corresponding aspects that were named by the respondents, either on a micro level involving the specific work station, or on a macro level involving the job market or the location of a company.

When looking through the data, it immediately becomes clear that the location and the associated logistics are a main issue for employees as well as students. However, there is a slight difference between the two groups. Whereas most employees are not willing to move for a new job and see “the proximity to the place of residence” and the possibility to “ride the bike to work every day” as very desirable, students have a less restricted view. They also believe that location is a key factor, but are not limited in the way that they are not willing to move. There seems to be general agreement among the students that moving is an option, however, they say that the company should have a “good environment” and it should be “somewhere in Germany. In a good locality, where you are not living out in hicksville.”

Albeit there is a distinction, there is a high probability that it is due to the different life stages the respondents are in and that the priorities are yet to shift for the students. This is already showing in the way students argue that “the willingness to move cross-country, or even abroad if the opportunity arises, is always linked to how uncommitted one is” and they eventually want to “settle down”. Before settling down though, some can “easily imagine to move to a bigger city or to another country or at least be flexible in going somewhere”. While this underlines the travel readiness of some prospective employees, it has to be mentioned that excessive travel, along the lines of permanently “living in a hotel and sitting around in Podunk”, is a dealbreaker for both groups of respondents.

An aspect on a smaller scale that some brought up is the topic of office equipment and furniture. Most students, as well as professionals, agree that an IT professional needs “proper working material” like a “reasonable computer” or “laptop or a computer that does not just work, but that has some power in it”. However, while employees want a “good workstation” or “a reasonable space” that is “quiet and shared with only a few people”, students go a step further asking for ideal and more specific working equipment such as “ergonomic screens” and furniture that facilitates “healthy” and “back-friendly work”.

Closely related to this is the concept of break options. This includes the office environment within a company or its immediate vicinity. One respondent put it simply by saying “a company should concern itself with the work environment”. For many respondents this means having “a canteen or at least a proper kitchen where one can meet and prepare food, but also eat” or “something else where you can easily get food”. One mentions that the optimum would be a “breakfast-buffet”, like they have “in many start-ups”, however most have fewer expectations qua catering with the issues being a place to get lunch and a “working coffee maker”. In addition to the mentioned catering needs, employees want a place to meet up with their co-workers. The ones that have a common room and even get a “foosball table” and a “pinball machine” welcome those factors, while the others find fault with the lack of a room “for joint activities” and would like it “if there was an X-box somewhere” in the break-room. One respondent even would like a “roof terrace, what with the fresh air, where you can sit outside during the summer. Be it during the lunch break or while programming”.

The last infrastructural benefit only a few employees named was the demand for information technology professionals in the current job market and the related luxury of finding a job easily, because there is “less competition”.

4.1.2 Organizational culture

From a quantitative view, organizational culture seems to be the most important aspect for attracting and retaining talent. Every respondent mentioned at least one aspect of organizational culture as an important factor, most even named several, adding up to a total of 219 statements concerning organizational culture, the distribution of which can be found in table 6. This category is comprised of the three concepts climate, organizational structure and goals which are covered in the following paragraphs.

Table 6

Organizational culture - codes and number as well as average of respondents' answers per concept.

Concepts	Students' statements		Employees' statements		Included codes
	#	Ø	#	Ø	
goals	5	0,7	24	1,4	vision; strategy; success; image
org. structure	17	2,4	59	3,5	organigram; processes
org. climate	30	4,3	84	4,9	colleagues; values; communication; affiliation

Climate

Climate refers to the social factors and interpersonal relationships that are related to being a part of an organization. The corresponding results are presented in the following.

“I think the climate has to be good” is one of the most reoccurring statements found in the data, but what the phrase climate actually consists of can be defined further by looking at four subconcepts that are very interdependent: colleagues, values, communication and affiliation.

In general it can be said that a good climate is mainly determined by the people one works with. Several people name “nice colleagues” as a prerequisite for a good climate and a few agree that “it's important how the boss comes across during the first impression.” However, communication and values influence such impressions. Therefore, it is important to look at those factors as well in this context.

Concerning communication one student mentioned that she liked that all employees of the company she interns for “address each other on a first name basis”. This informality was also found in the companies where this research was conducted and it was obvious during the sessions, although not everybody vocalized it, that this kind of behavior fosters a pleasant social basis at work. One respondent said that he “felt comfortable right from the beginning”, because he was told to wear his “everyday clothes” and use the first name basis for the job interview. Using a first name basis seems to ease the tension by building mutual trust. This can also be helpful when asking for help “without reservation”, which students

and employees alike deem important. They expect support and the possibility to “directly address issues” and “at least discuss them” in order to feel treated fair and respected. In this context it is important to add that being granted a say in what has to be done and how it should be implemented is one of the aspects that was especially present in the employees answers. Though open communication with colleagues and superiors fosters a positive climate, it is equally important to the respondents that there is “clarity” concerning rules, and that they are “well informed how the company is doing”. There has to be a certain sincerity, because broken promises lead to frustration, as this respondent illustrates: “Everybody always promised something and nothing happened. That's lousy.” In contrast, receiving and being able to give feedback about work content and processes is highly valued by the respondents as is having autonomy, freedom and responsibility in their work by, for example, being offered “time to develop ones own ideas and ways”.

The last aspect related to organizational climate is the concept of affiliation or team-building. All respondents agree that team-building exercises or sharing activities in a less formal setting helps to “develop a community”. This starts by sharing a coffee in the break-room “and on birthdays there is cake”, which draws employees together during a work day or “just going out with colleagues for a beer at night”. The respondents said they have had “DVD nights” and “game nights”, which they enjoyed. And then there are the activities on a more official level. Many agree that “the Christmas-party is always pretty fun, because one gets to talk a little about more private stuff”, and there are also some people who believe that “staff outings would be cool.”

Organizational structure

The concept of organizational structure incorporates all structures, regulations and mechanisms that influence the organizational culture. One related aspect that several respondents named was the overall hierarchy within an organization. Most people agree that a flat hierarchy is desirable, because it enables short communication paths and participation.

Within this flat hierarchy people like to work in a “dynamic, not too extended team” that is well “structured”. It is important to mention, though, that a hierarchy can also be too flat, according to one respondent. He argues that “you do not know what your field of competence is” when the hierarchical structure is practically non-existent. So the flat hierarchy that most respondents refer to can be identified as SMEs with a clear team-structure that still allows the employees to “directly go to [a superior] without having to elaborately schedule a meeting”.

This shows that the hierarchy is closely related to another structure within the organization: the communication structure. As mentioned above, short communication paths are valued by the respondents because they facilitate several positive outcomes.

Firstly, they help when solving problems, since a superior can “arrange that other people can provide support”. This is harder in “giant companies” where there are several levels that have to report to one another which causes problems to “peter out [...] somewhere on a management level”.

Then direct communication can facilitate participation. Especially the employees emphasize the significance of voicing their own opinions and ideas in a context in which they might be considered, because they want to have “freedom to think for themselves and to experiment”. This is easily incorporated in every day work by planning ahead and leaving time to not always do things “by the book”, by just asking the employees “What do you think about this, would you do this differently?” or in the common staff appraisal interviews that can offer a discussion platform for questions like: “What was good? What was bad? Where are we headed?”. However, there are also creative ways to let the employees know that their ideas are valued. One respondent said that he liked the concept of an “idea-contest” where “everyone was allowed to enter and present their ideas for new products and there was a prize of 400 €”. This notion was met with approval within the focus-group and should therefore be considered as a less conservative possibility to involve employees.

Another way short communication paths can be helpful is by creating a “casual and open” atmosphere, because “open communication” helps people “get along and [...] have no fear of approaching the other”. This part is explained in further detail in the previous chapter.

And finally the last aspect related to communication structure that is important to employees is transparency. Above all else this means a functional top-down communication strategy, which includes a functioning information flow on how the company is doing, for example through “monthly meetings where new projects are announced”, as well as clear guidelines on objectives, time tracking and vacation entitlement. Especially for some students this also means “a bit of introduction on how one is supposed to organize and how the company is organized”. Although there is agreement that “a little bit of structure and guidelines are actually pretty good”, respondents enjoy a certain degree of autonomy and “leeway in decision-making” within their boundaries. This is related to the concept of supervision. As discussed, a rational amount of supervision can be helpful in solving problems. It can also be a tool for employees to avoid being “looked at funny when you leave early one day”, because time tracking does work for both ends as a supervision device. That way employees do not have to “keep seated because it is not five o'clock yet”, but can use slow days to reduce their produced overtime. However, too much supervision, “thus when every move and your whole work station, your method is controlled” or “when the boss tells me: this is how it's done, this and that has to be done, in this frequencies are you allowed to take your breaks and one would be completely constrained in a daily desk job” would be “a no-go” for some respondents. “Motivation to do pretty much anything”, several respondents agree, is achieved through “the thing itself – not through someone standing in the back saying that it has to be done by tomorrow and putting pressure [on people] because it is not done yet”. In general, it can be said that when the respondents feel “hassled”, they start to question their fit for the job.

Goals

The concept goals incorporates the vision, strategies, success, and image of a company and is defined as the objectives a company strives for, achieves, and conveys to the public.

Employees want to work for a company that is “not so conservative and completely gridlocked”, but instead has a “plan for the future or a consistent line in what is being developed”. Therefore it is obvious that especially the working information scientists are looking for a company that has a future-oriented vision. In this context many respondents argue that innovation is worth striving for “because that is the only way to improve and develop oneself”, but they also interject that good “software development cannot really be achieved under high pressure” and that there are situations “in which it is clear that decisions are not the best.” Thus innovation can only be achieved through creativity when there is breeding ground for it, which has to be provided by the management level. This leads to the strategies of a company. One example for a strategy that seems important to several respondents is the scope of a product. There is a group that finds it important “that a company has a wide reach. So that not just [...] the life of a few people is improved, but of as many as possible”. Another illustration is, as explained above, that creativity has to be fostered by the strategic decision to allow “time to develop one’s own ideas and ways”.

Such strategic decisions play a vital role in the performance of a company, because the “success of the company [...] is dependent on the creativity of the employees”. Also, success is an aspect that many respondents deem important, since it suggests “security” when “the company is growing”, but also because contributing to success facilitates motivation according to the respondents.

The aforementioned concepts vision, strategies, and success all play a role in building an image, which makes up the last aspect of goals. Although only a few respondents voiced that they try to find out before they apply for a job “what image they [the

companies] have and the like” and “what the company does”, those statements subsist without opposition, which can be seen as general agreement to the necessity of having a good image. One student even goes as far as to say that a “no-go would be [...] if there would arise legal issues and the ideal image of the company were not compatible with my ideals”, which even raises the issue of corporate social responsibility that can help or hinder the company image.

Apart from this student, however, there were few statements on the concept goals by students. This shows that not everyone consciously concerns himself with the overall situation of companies and the effects the vision, strategy, success, and image can have on the organization and its members. It can also indicate that the already employed have a different view on the organizational world as a whole, because they are part of an organization themselves. Either way, since the statements regarding the organizational goals were neither vehemently endorsed nor rejected, it leaves the impression that while this concept is not equally important to all respondents it obtains approval in general.

4.1.3 Work content

The actual work itself is the basis for the work content category, which consists of the concepts topic, tasks and clients. The number of answers and the included codes can be obtained from table 7 and are represented in detail in the following paragraphs.

Table 7

Work content - codes and number as well as average of respondents' answers per concept.

Concepts	Students' statements		Employees' statements		Included codes
	#	Ø	#	Ø	
topic	14	2	17	1	technical background; subject matter; relevance for society variation
tasks	12	1,7	30	1,8	
clients	-	-	2	0,1	

Topic

The concept topic refers to aspects related to the actual subject matter an employee deals with in his work, thus specific technological aspect, thematic priorities and the relevance a topic has for society.

The respondents agree that the “things or problems one busies oneself with and solves [should be] somewhat interesting”, because that way “the work itself motivates”. Yet there are different aspects that can make a topic interesting for an employee.

First there is the technical background, which in the broadest sense has its basis in applied science that has “clear regulations and is not defined somewhat randomly”. There is general agreement among the information scientists that they like this about their subject. In a more concrete sense the respondents value the variety that is the “progress in software and application and languages”, because it “changes what you do every day”, which prevents boredom. However the statements of the employees show that there are preferences qua languages and software and that they are rather reluctant to work on “SAP”, “commercial standard software” and “C++”.

This reluctance might be grounded in the fact that those kind of technical topics usually do not have a high impact on society, which is the second aspect making a topic interesting. Especially the students have the idealistic claim to work on something that is relevant to society. They see informatics as “a link between different areas and different aspects of society at the moment” and find it “interesting in information science [that it] is just revolutionary in some areas”. They also want to keep their “finger on the pulse of the time”. Similarly, but not quite as idealistic in nature, there are employees who prefer to “work on current issues”.

Since this preference for actuality can be interpreted as technological as well as thematic, it brings about the last aspect of this concept: the subject matter. In general it can be said that people ask themselves: “Does the work even interest me, or would I get bored

with it?” So they want to have a job that is “in an area that one finds interesting”. For the ones already working in geoinformatics, this subject seems to be one that matches this criterion, because three people explicitly named it as an interesting sector. However, the variety of changing thematic projects also appeals to the respondents, probably because that way it is not quite as problematic if one theme is not perceived as interesting. Still, one idealistic student remains that finds it important “what the company does”, because to him his future job “is more of a calling”. So it seems that idealists have to be able to identify themselves with the general *raison d'être* of a company.

Tasks

Tasks, as a concept in this thesis, is defined as the type and diversity of assignments that an employee encounters in his day-to-day work life.

All respondents agree that the work offered by a position has to be “interesting” or “fun”, but that does not just include the aforementioned topic, but also incorporates the tasks a job consists of. Thus, with regard to tasks, four prerequisites emerged from the data. In order to be attractive to people, tasks in a job should be challenging, creative, diverse and solution-oriented. Students and employees alike state “that one occupies oneself with some kind of problem and then solves it little by little”, which they find appealing as it offers “quick success”. This form of instant gratification seems to be a highly valued characteristic of the software development field.

The rest of the demands are less inherent to the field though, and more dependent on the individual position. In this context “complexity” and “challenging work” are mentioned as positive aspects of a potential job by almost everyone as the respondents feel that being challenged, but not swamped by work offers motivation. So it is not surprising that employees do not want to work “to far below [their] level” by, for example, having to “test [the programmed software] for six months” or to “make coffee all day”. Thus respondents like to steer a middle course where they “are not overwhelmed, but challenged”.

For several respondents this challenge lies in the creativity of their work. One respondent states in this regard that he finds “the complexity exciting. There are many options to develop oneself and it offers creative possibilities for dealing with problems” while another describes himself as “one of those that like to tinker and strive for as many solutions as possible and then pick the best one”. Overall it can be said that creativity is a high priority for many respondents, because they like to “approach [their work] a mite creatively”, “solve [problems] in a creative manner” and “give free reign to ones creativity”, since “a lot of [them] are motivated by the creativity of the work”.

Still, for some respondents this does not suffice. They want “the possibility to learn about new technologies” and “just different tasks”, because “if one does the same thing the whole life, it is probably going to be a tad monotonous”. “No monotony” is a reoccurring motto in the data and employees prize the diversity of their work: “constantly something different, constantly you have to find new solutions and that's why it is fun.” The ones that work on changing projects value this fact in particular, although they do not see it as a necessity - “it just is a perk” to them.

Clients

This concept with only a handful references between all respondents seems to be a minor factor in attraction and retention. It is defined as the aspects related to the interaction between employees and customers external to the organization. The students do not mention this aspect at all, whereas a few of the professionals would “favor a company or a job that makes general products as opposed to one that works for a specific customer”. Two possible reasons for this can be extracted from the results. The first is that specific orders go hand in hand with creativity constraints, because a tender is “needless to say already pretty specific” and it is common that the client gives input such as “this and that has to be done”. The second reason is the scope of a product. One respondent argues that working “for a specific client, one company that has approximately 100 people or so that use [a product]”, simply is

too small a range to satisfy his need to give back to society.

4.1.4 Professional development

Some aspects of work content, especially tasks, are closely related to another aspect named by every respondent in one way or another: professional development. Where some respondents are looking for opportunities to climb the career ladder and take on more responsibility, others are just interested in having a say in their own path or want to keep expanding their educational or work-related horizon.

The development opportunities are further categorized in advancement and growth. Advancement is comprised of the more esteem-related aspects and growth refers to a broad term for education and skill development. The distribution of answers between students and employees can be derived from table 8.

Table 8

Development - codes and number as well as average of respondents' answers per concept.

Concepts	Students' statements		Employees' statements		Included codes
	#	Ø	#	Ø	
advancement	5	0,7	22	1,3	career opportunities
growth	8	1,1	20	1,2	learning opportunities

Advancement

In this thesis, advancement is defined as opportunities for career development. What this concept incorporates is shown in the subsequent paragraph.

When asked what they want for the long haul the major group of respondents discloses that they want to climb the career ladder or at least “have the possibility to advance” in a company. Some just like to know they have options - “I don't have to stay a developer all my life. Instead I can go into project planning, project management or I'll stay developer, if I want to.” - while others say “the goal is to do less software development and more project management”. The degree to which people want to rise the ladder varies. For some, advancement does not necessarily mean on a hierarchical level, but merely “taking on

responsibility”, for others being “a little bit higher up” is sufficient, because to them “the problem is: the higher you go, the less you have to do with the technology and the software development. Then it's just planning and coordination and that sort of thing. That's why most people don't want to do that. That is not the job you initially chose, but something else.” However, there are several participants that explicitly state that they cannot imagine “just being a programmer until retirement”, but want to “back away” from coding and do more “coaching”, “consulting” or “project management”. Independent of the degree to which people strive for advancement, almost everyone affirms the avail of being able to “voice wishes on how one wants to develop oneself and how one imagines the professional future.” Three male respondents even explicitly state that they want to start their own company, because eventually they want to be independent in their decisions even at the risk of “lowering one's sights financially in the beginning”. Still, most respondents just expect their employers to support them in setting and achieving their personal goals, which mainly include career-development, task-diversity and appropriate pay.

Growth

Growth refers to formal and informal learning opportunities that lead to the development of a specific skill, thus trainings or feedback respectively. Without exception the respondents named an aspect related to personal growth in the organizational environment as an important factor for a job.

For most of them this means opportunities to either learn something new or deepen their knowledge. These range from more formal trainings like attending “conferences” and “seminars”, via finding ones calling by exploring different areas, to pursuing progress by “working with current stuff in technology and staying up-to-date in research”. Although the specific expectations toward learning are manifold, there is agreement that it should be object of the company “to encourage [learning] and to invest in employees” because it helps “to develop oneself”. Some employees, as well as some students, agree that this

encouragement already starts on a small scale when giving “positive or also negative feedback” which can help to assess what is being done well and what needs to be improved upon. Ultimately, as one respondent points out, continuous learning is a win-win situation because it ensures that the individual “as well as the company makes progress”.

4.1.5 Subjective measures

The last category contains the concepts that are highly related to the perception of individuals and therefore less objective and harder to influence. The quantity of answers and the average statement per person on this topic can be found in table 9. What fun and cost-benefit-ratio comprise in the context of this study is outlined in the following paragraphs.

Table 9

Subjective measures - codes and number as well as average of respondents' answers per concept.

Concepts	Students' statements		Employees' statements		Included codes
	#	Ø	#	Ø	
fun	5	0,7	22	1,3	n/a
cost-benefit-ratio	8	1,1	20	1,2	n/a

Fun

The concept of fun refers to the pleasure employees feel at work. The corresponding answers are highlighted in the following.

An aspect that is especially present in the employees answers is fun. There is agreement that a job must be fun, in order to be attractive in the long run. Looking through the data it can be found that fun is a perception and therefore the definition differs from person to person. However, based on the answers of the respondents a few conditions were extracted that seem to foster fun in a job. Firstly, the work needs to be interesting, because “of course one has to enjoy the thing itself” in order to perceive a job as fun. Then there is the concept of instant gratification, which appears to be a factor that IT professionals enjoy in their job. One respondent sums this up: “then one is content that one solved the problem; one has swift successes and I like that about software-development.” This contentment

builds the nurturing ground for fun. The last condition for fun that can be extracted is diversity. Most respondents agree with the one that argues, “if you have done every part already, then I don't enjoy it that much”. It is apparent that the respondents, especially the employees, use monotony as a synonym for lack of fun, and diversity influences the perception of enjoyment, as this example shows: “constantly something different, constantly you have to find new solutions and that's why it is fun.”

Cost-benefit-ratio

The concepts mentioned above are factors that play a role in the attraction and retention of employees, but it is important to add that not one of those factors makes or breaks a job. It rather is an interaction of the aforementioned conditions, which is the idea behind the concept of cost-benefit-ratio. Although the respondents agree that all those factors “have to be seen in the big picture” and “the cost-benefit ratio has to add up”, every respondent has slightly different priorities. Whereas one respondent thinks that “if they said to work 100 hours overtime, but you get 100.000 Euro, that is when you would think about it” another believes that “there is no point to more money in the bank when you are just not comfortable”, which goes along with another quote stating that the respondent “would be willing to work overtime or something if in turn the organizational climate in the company was good”. Thus it seems that for many respondents the climate is significant in their cost-benefit-analysis. However, the main aspect that emerges from those quotes is that “it has to be in a good ratio”, because when looking for a job “there are three, four, five things that are traded off against each other” and if some negative aspects keep adding up they might lead to turnover, like one respondent states: “The main reasons are somehow boredom, no enjoyment of work and a crappy climate. When those three things come together, what is keeping you there then?”

Concluding the results section, it can be said that the decision to take or stay at a job is the result of the interaction of the aspects illuminated above, thus benefits, organizational

culture, work content, organizational development, and the subjective significance people ascribe to those factors, because “one has to weigh” the options. An overview of those options is given in table 10.

Table 10

Attraction and retention factors by category and relevance to Employees/Students.

Category	Factor	Attraction		Retention	
		Employees	Students	Employees	Students
<u>Benefits</u>					
monetary	Salary	✓+	✓	✓-	✓-
	Bonuses	✓	✓	✓	✓
	Provision	✓	?	✓	?
social	Courtesies	(✓)	(✓)	✓	✓
	Flex time	✓+	✓+	✓+	✓+
	Free time	✓+	✓+	✓	✓
infrastructural	Job security	✓	✓	✓-	✓-
	Logistics	✓+	✓+	✓	✓
	Workstation	(✓)	(✓)	✓	✓
	Setting	(✓)	(✓)	✓	✓
	Break options	(✓)	(✓)	✓	✓
<u>Org. culture</u>					
Goals	Vision	✓	✓	✓	✓
	Strategy	(✓)	(✓)	✓	✓
	Success	✓	✓	✓	✓
Org. structure	Image	✓	✓	✓	✓
	Organigram	✓	✓	✓	✓
	Processes	(✓)	(✓)	✓	✓
Org. climate	Colleagues	(✓)	(✓)	✓+	✓+
	Values	✓	✓	✓	✓
	Communication	(✓)	(✓)	✓+	✓+
	Affiliation	(✓)	(✓)	✓	✓
<u>Work content</u>					
Topic	Technical background	✓	✓	✓	✓
	Subject matter	✓	✓	✓	✓
	Relevance for society	✓-	✓	✓-	✓
Tasks	Variation	(✓)	(✓)	✓	✓
Clients			?	✓-	?
<u>Development opportunities</u>					
Advancement	Career opportunities	✓	✓	✓	✓
Growth	Learning opportunities	✓	✓	✓	✓
<u>Subjective measures</u>					
	Fun	(✓)	(✓)	✓	✓
	Cost-benefit-ratio	✓+	✓+	✓+	✓+

Note. (✓) = often not visible for outsiders, ✓ = factor, ✓+ = major factor, ✓- = minor factor, ? = no data

4.2 Additional findings

The answers of the students and the employees show a lot of similarities in essence. However, the answers of the employees have a more critical tenor, whereas the students express more idealistic views. There also is general agreement that there is not one explicit factor responsible for the decision of taking or declining a job, but that some factors, like flexibility, pay and the subject, can balance each other out. Thus taking a job, but also staying in a job, is often a matter of a personal cost-benefits-analysis.

Also, the data show that there are different stages to the job search and several factors that play a role in attracting and retaining employees within those stages. In order to understand the attraction and retention processes it is important to look at the different stages that a prospective employee passes through: The initial phase before the application, the selection process, and the experiences collected while working in a company. These phases are explained below.

4.2.1 *The initial phase*

For the first phase it is important to understand how IT professionals look for a job. Initially, finding information is the main concern, because they argue that they are looking for a company that they can “identify with”. The data show that the internet is the medium most often used to start a search. Many note that they typically use online job portals to find relevant ads or look at websites of companies that raise their interest. The respondents also concur that personal contact to a current employee is most helpful, but often not accessible, when looking for information on the issue of work environment factors of a prospective employer, which is deemed an important factor in a job. However, some respondents express the possibility of talking to an employee of a firm at a job fair as a good alternative for the classical word-of-mouth, because they feel that they can “socialize” or “make a relationship” there. It can be seen that potential employees strive to gather information in order to define for themselves what they can expect from a prospective job.

4.2.2 The selection process

This is also apparent in how some respondents talk about the selection process, since their expectations are shaped by the impressions they get of the company. One put it simply: “it is important that the boss makes a good first impression” as it can determine whether or not a person takes a job. “The sympathy has to be there”, because the respondents say “if I had a boss that treats me like a doormat I think I wouldn't be that happy there”. Some even go further and explain what would lead to a bad impression. The attendees of one focus-group concur with their fellow respondent on the proposition that recruiters who “use tactics just to drop you in it or to make you look like a fool” is a specific example of a bad first impression in a job interview. However, although this phase of the job search process is not explicitly addressed in every focus-group, accordance with the idea that sympathy for the people you work with is important is omnipresent.

4.2.3 The collection of experiences

The last stage of the attraction and retention processes is the phase in which the employees get to know their job, their employer and their co-workers. The respondents argue that some aspects, especially the organizational culture, can only be apprehended when actually working in a company, because in the job interviews “they naturally only tell you about the best” aspects. This is the phase that can no longer be counted to the attraction process, but plays a major role for retention.

5 Discussion

This chapter firstly strives to answer the posed research questions.. Factors that were found to be relevant for attracting and retaining personnel are explained, scrutinized, and linked to existing theory. Within these factors, one aspect that is omnipresent in the theory about attraction and retention that builds the basis for this research, can be found: fit. Although the respondents do not explicitly mention this concept, it can be found in the spectrum of answers. Some respondents argue that they want to work on something that has societal relevance. This shows that people with idealistic aspirations want to work for a company in which they can contribute something to society, thus one that matches their own personality. The same holds true for the category of bonuses and advancement. More competitive people are looking for a job that caters to this need. These examples of intrinsic factors show that values and expectations of people have to fit a company to a certain degree, in order for an employment to be successfully built and maintained. The generalization of these findings leads to the conclusion that the concept of fit, as explained in the theoretical framework, is present in the findings, if not necessarily mentioned explicitly.

As for the structure of this chapter, some results that are relevant to attraction as well as retention processes were only discussed in the context that has more relevance to that specific factor. Others that are equally important for both research questions are incorporated in both subcategories. This chapter concludes with the implications of this research, addressing limitations and recommendations.

5.1 Attraction factors

In this paragraph the factors that attract prospects to work for a company are discussed, adding up to the detailed answer to the first research question:

RQ₁: What factors play a role in the attraction of human capital in the IT sector?

The main attraction factors identified in this study were logistics, flexibility, job security, and growth. Pay also plays a role in attraction, especially for employees, but only as a prerequisite, not as an actual pull-factor.

While there are slight differences between the two groups, thus students and employees, the main tendencies of what attracts them are the same and are therefore discussed jointly, only highlighting those aspects specifically where a mentionable difference was found.

5.1.1 Benefits

Within the category of benefits, there were three subcategories found: monetary, social and infrastructural. Within monetary benefits, three factors were found that play a role in the attraction of employees: Salary, bonuses and pension or provision. Social benefits that play a role in the attraction as well as the retention of employees are flexible working hours and free time. As for the infrastructural benefits: logistics play a big role in the attraction of personnel and a lesser role in the retention. The other aspects of infrastructural benefits, thus workstation, setting and break options can influence attraction, if they are visible to the applicant before starting to work for a company, but are more relevant to the retention process, because they affect the daily routines more than the initial decision to work for an organization.

Monetary benefits

Salary. Pay has been mentioned several times by the respondents, albeit more often by employees than by students. Salary was found to be an attraction factor in that way that if the other factors are equally attractive, a higher salary would be preferred. However, this does not mean that it is possible for companies to just buy the best employees. As long as the pay is considered fair, e.g. not too far off from the average, pay is seen as a prerequisite and other factors play a more important role according to the respondents in this research.

This finding concurs with the one of Osborn (1990), who found that there is a minimum requirement for salary above which the pay level does no longer significantly influence attraction, while it differs from the one of Jurgensen (1978), who found salary to be more important than typically said. Still, in order to stay profitable, companies have a limit to which they can raise their employee's salary, which differs from company to company and usually gives the bigger companies an advantage over smaller ones. This does not mean that companies paying a higher salary can afford to neglect other aspects relevant for attracting employees. On the contrary, smaller companies can use their small size in order to find out what their staff actually wants and needs and therefore use their size as an advantage that can make up for the inability to pay the highest wages.

Bonuses. The results show that bonuses such as a company car or success fees can attract some employees. This matches the findings of Cable and Judge (1994), who found that pay systems can be even more important attraction factors than pay level, because the scope of options is larger. During the focus groups it showed that the competitive types were more susceptible to bonuses, whereas for example the more family-oriented see bonuses, such a variable pay or a company car, more critically. This is an example for the relevance of person-organization fit, as discussed above. Further research to determine whether this observation is valid is needed, so that eventually this information can help to attract the kind of person a company is looking for.

Pension. A company pension plan is valued, although only mentioned by already employed people. This can be explained by the lack of concern for old-age provision from students, which they might show, since their retirement does not seem an issue before they are even employed. Still, it is interesting to look into this concept further and research whether, when faced with this topic, students value a good concept for a company pension plan and how they evaluate this subject as an attraction factor for a job. Since most students have never worried about this, this might actually be a good starting point for companies

that are looking for factors to differentiate themselves from others to use in their people strategy. Especially in times in which the senescence of society leads to speculations of the public pension to be uncertain (Schäfer, 2015).

Social benefits

Flexible working hours. Knowing that there is the possibility of working from home or changing ones schedule helps to decrease the issues that arise from the double load of having a full time job and a family (Hill, Erickson, Holmes & Ferris, 2010; Hill, Hawkins, Ferris & Weitzman, 2001). Offering flexible working hours can attract people (Honeycutt & Rosen, 1997), particularly young parents or employees with nursing cases in the family. Especially in times of low birth rates and high divorce rates, it is important to offer double earner families as well as single parents an ease of their burdens in terms of flextime and flexplace, since everyone profits from the arrangement: Employee's work-family-conflicts are reduced, making them more productive at work (Hill et al, 2010) and the foundation for aligning work with family is laid that might even eventually help to increase the birth rates and therefore aid society.

Free time. Having free time, thus an adequate amount of vacation days and reasonable working hours, makes up one of the most important, if not the most important attraction factor. Together with flexible working hours, free time makes up the concept of work-life-balance that has gained supporters over the past decades (Emslie & Hunt, 2009; Guest, 2002; Greenhaus & Beutell, 1985; Hill et al., 2001). Research showed that extensive working hours can lead to mental and physical health issues (Michie & Williams, 2003) and that working fewer hours can prevent these. It has to be said, however, that the need for free time is much more dominant in the employees' answers than it is in the students'. Students express a general willingness to travel for their work and also spend their weekends away from home, whereas most employees consider excessive travel as a dealbreaker. This shows that the life stages in which people find themselves during their professional career seems to

have a major effect on their work-life-balance related needs. Also, it suggests that off-job stress, such as the need to service a loan or take care of children, typically increase after finishing a study, leaving employees under more pressure to be close to home. A good way for a company to cater to those needs is to be flexible in assigning roles to their staff, thus allowing changing personal situations to be reflected in the position a person performs in the company.

Job security. While Hiltrop (1995) argues that the psychological contract changed from primarily suggesting security towards being situational and defined by short-term gains and Rutledge (2005) sees an increasing emphasis on self-organization, the respondents all agree that the security of a job is a big factor for attraction and takes an important place within the psychological contract. With the financial crisis still affecting the economy, it seems logical that employees are looking for as much stability as possible. It is common in Germany that new employees receive a contract only valid for one year. This practice suggests that a company does not value the individual, but keeps the option of getting rid of personnel. This leads, according to the respondents, to a bad work climate, which ultimately influences turnover.

Infrastructural benefits

Logistics. The main factor that plays a role in attraction with concern to logistics is the proximity to the place of residency and the infrastructure of the town in which the company is situated. This is easily explained by a truth universally acknowledged, namely that people, just like other animals or well programmed machines, choose the path of least resistance (Ferrero, 1894) or put more plainly: humans are driven by convenience. The aspect of being able to go to work by bike or having the essential facilities close by is as much of a factor in this context as is the unwillingness to move. The importance of choosing a workplace close to home is higher for the already employed than it is for students, since students are more willing to move for a job. This can be explained by the fact that students

in general are not as tied to a place as people who are older and have started to settle down or start a family. Just like the job embeddedness theory suggests, there are factors that a person has to sacrifice when changing a job (Mitchell et al., 2001). These include the personal ties as well as the living situation. Since students do not usually have their own apartment and fellow students also might move after graduation, their ties to a place are fewer. This knowledge can be useful to companies, since they can target good students before graduation. Advertising the positive aspects of working for the company and offering aid with finding an apartment or the moving process shows care and lowers the threshold for moving to a different city. This obviously only works for companies that do offer some kind of logistical benefit, thus a location near or in a city or an otherwise improved infrastructure.

5.1.2 Organizational culture

In this section the parts of organizational culture that can be visible to an outsider of the organization are discussed in detail. The concepts mentioned here, thus goals, including vision, success and image, and organizational structure with the codes organigram, as well as the organizational climate as defined by a company's values, are used by potential new hires to make sense of a company and assign an identity that they then can match theirs with.

Goals

Vision. Several respondents voiced that it is important to them to work for a company that is future-oriented and values innovation. This might be a factor that is especially important in technological fields like software engineering, because they have a high level of experience with several technological gadgets. Since Chau und Hui (1998) suggest that experience influences the willingness to adopt technologies earlier, research backs the idea that software developers are looking to work with the latest technologies and languages and therefore want to work for a company that places some emphasis on that

subject. However, according to Rogers (1983) only 2,5% of technology users are innovators. Those technology enthusiasts appreciate the newness of the technology in itself and can be, while being risk takers, change agents and peer educators. Companies with a high need for innovation should develop and communicate a strong vision that emphasizes this concept in order to attract employees that value and want to be part of the innovation process. In a way it can be seen as leading by example, because when the management focuses on innovation, the culture of the company adapts to this change (Duffin, 1992) and eventually attracts more people who fit into that culture (Lievens, Decaestecker, Coetsier & Geirnaert, 2001; Judge & Bretz, 1992; Schein & Diamante, 1988).

Success. If a company can adequately show that it is successful, it should do so, because success is an attraction factor in that way that it suggests job security, which is highly valued in modern times of general instability. Helping people in their quest for uncertainty reduction, by offering relevant information can stir the decision making processes of potential hires toward the particular organizations (Berger & Calabrese, 1975). Also, working for a successful company is attractive to those people who have the need for affirmation, since it helps them to become part of a desirable in-group (Kassin, Fein & Markus, 2007).

Image. The image of a company is the mental picture that is evoked by the mention of the firm's name, so it can be argued that the whole point of an employer brand is to develop a positive and recognizable image. Since it is not necessarily the actual state of a company, but the public perception, it is important for an organization to achieve the desired media coverage, performance and goodwill in order to be presented in a way that is intended by the company. Since the image is one of the ways a potential employee evaluates the personality of a company, it is obviously desirable to have a good image. However, the potential gap between the image, thus the public perception and the reality, thus the organizational practices, should be minimal, since a promise suggested by the company

image that leads to the attraction of employees which then cannot be delivered on during the employment leads to a breach in the psychological contract and decreases the possibility for retention (Kickul, 2001).

Organizational structure

Organigram. Respondents prefer a flat structure over a tall one, because it suggests short communication paths and a low level of bureaucracy. The concern for the organizational structure was mainly voiced by already working respondents, indicating that for students, who have not yet worked in an organization, this topic is not as pressing. The reason it is counted primarily as an attraction factor is that the organizational structure is typically visible for the general public and gives some indication of the communication structure, which in itself is not assessable to people outside the organization. The preference of respondents for a flat hierarchy can be explained by previous research. Snizek and Bullard (1983) found that increasing the hierarchy of authority leads to lower job satisfaction. However, there still have to be clear rules as to who is responsible and who can be approached for help, thus setting rules, but keeping the bureaucracy level low can be seen as the optimal structure for the employer of choice. Organizations that have a tall organizational structure can try to circumvent this issue by keeping communication paths short and having clear rules in order to prevent issues before they arise.

Organizational climate

Values. When looking at previous research on values, Hofstede (1983) has categorized cultures by values assigned to masculine versus feminine traits. According to Hofstede (1983), Germany is a culture minted by masculine values, thus the expectation would be that values along the lines of living in order to work, higher pay being more relevant than fewer working hours and money being more important than people would be applicable, since these are the traits that characterize a masculine culture. The opposite was

found, however. The respondents show that feminine values are much more dominant in their decision to take or stay in a job. This seems particularly relevant since most respondents were men and the field of information technology is still marked by a higher level of men, with women making up less than 20% of the workforce in informatics (Bundesagentur für Arbeit, 2014). This goes to show that, apart from the fact that software engineering still is a domain populated by men rather than women, the cultural values in Germany are shifting towards a more feminine approach. This is something that should be reevaluated.

Differences in values between the generations were only observed in that way that the students seem more idealistic, when talking about the topic, the same was reported by Amundson (2007). Still, both groups see the intrinsic value, thus the motivation in the task itself as important. Another difference, namely students in general being less tied to a place should probably be accounted to a life-circle difference, rather than a generational one.

5.1.3 Work content

Here, the topic with the technical background, the subject matter, and the relevance for society are discussed as attraction factors.

Topic

Technical background. The technical background is closely related to the concept of vision, since both incorporate innovation. In accordance with Chau and Hui (1998), several respondents state that they want to work with the latest technology. For some, this is a prerequisite for taking a job, for others it just means that they want technical equipment that they can use in order to adequately do their job. Still, the information technology professionals typically fit the personal characteristics of innovators, early adopter and early majority (Rogers, 1983) and since they are drawn towards new technologies, companies

looking to employ them should offer possibilities to use, or at least evaluate, such components.

Subject matter. A high priority for the respondent is the subject matter they work on. An interesting subject facilitates intrinsic motivation for IT knowledge workers. In contrast to other fields, professionals in the IT sector seem to have satisfied their basic needs to that extent that they mainly leave the worrying about lower order needs behind and focus more on higher order needs such as the need for self-esteem and self-actualization (Maslow, 1943).

Relevance for society. Along these lines, some respondents, especially the students find it important that the work they are doing has some kind of relevance for society. This idealistic need of Generation Y was also identified by Cennamo and Gardner (2008), leading to the assumption that it can be helpful to point out the ways a company's products influence people's lives in order to attract the more idealistic employees, which often do not see their work as a job, but a calling.

5.1.4 Professional development

In this subsection the possibility for growth as an attraction factor is discussed and linked to previous findings.

Growth

Learning opportunities. The respondents are all eager to keep learning, thus offering opportunities to do so and advertising them can help to attract employees. Especially those that want to go with the times are attracted by this, which in a quick-changing field like information technology can be seen as a desirable trait in an employee.

Of course it is necessary to eventually deliver on promises of learning opportunities, in order to keep up the psychological contract and retain the employees. Since offering learning opportunities is not only reported to be desirable by the respondents, but also

positively influences health (Mikkelsen, Saksvik, Eriksen & Ursin, 1999; Rau, 2006) companies should encourage growth. This might start by implementing efficient feedback mechanisms that help knowledge workers to improve their routines, but go as far as paying for specific trainings. One idea to kill two birds with one stone in this context is to have one employee hold a workshop for others. That way the knowledge of one employee is distributed to several others, which does not only offer learning opportunities for the participants of this workshop, but also helps to reduce potential boredom and improve the mood of the lecturer (Fisher, 1993). Moreover, it eventually lessens the cost of turnover of individuals for the company, since the precious knowledge is more widely spread.

5.1.5 Subjective measures

In the following the concept of weighing the factors for the specific decision is discussed, termed here as cost-benefits-ratio. It is included within the attraction section, since the calculation of this ratio starts before entering the organization and stays valid as long as there is no perceived breach of the psychological contract (Robinson, 1996).

Cost-benefits-ratio

There are different priorities guided by personal values, life stages, health issues or the like. Universally true, however, is that each person assesses their own cost-benefits-ratio in order to determine whether to take or stay in a job. The factors found in the data may all play a role in the individual job choice processes. In alignment with frameworks such as the total rewards approach, organizations should try to find the factors that match their own personality as well as the needs of their employees. Since the needs of individual employees change, and so do the demands of society, an organization has to see attraction as an ongoing process and adapt to shifting needs. Only those companies that stay in a sort of flux, adding or removing rewards according to their values, their employees' needs, and adapting to changing policies of competitors in order to differentiate themselves, have a good chance

of building an employer brand that is successful in attracting and retaining personnel in the long run.

5.2 Retention factors

This section deals with the factors that have relevance for the retention process. Several of these can also play a role in the attraction of personnel, but are more relevant for retaining employees. The aspects relevant to the second research question, namely

RQ₂: What factors play a role in the retention of human capital in the IT sector?

are discussed in detail. As for the main retention factors, colleagues, or the social processes at work, are by far the most important issue in retaining employees. Processes and communication within the company, variation in the work itself, flexibility in scheduling work and possibilities to advance are the other main factors that IT professionals value.

5.2.1 Benefits

In this sector, as indicated in the discussion of the attraction factors, the remaining codes belonging to benefits are discussed. Again, several of the benefits discussed in this section can play a role in the attraction process, but since most of them only become visible to their full extent when working for a company, they are included in the following.

Monetary benefits

Courtesies. In order to build a successful employer brand, it is important that an organization distinguishes itself from competitors. Courtesies is a factor that can help to achieve this goal, since it incorporates a lot of the small things that a company can do to let their employees know that they are appreciated, like little gifts for Christmas or free coffee. Since free beverages are expected these days, they need to be provided, in order to prevent frustration caused by unmet expectations. Thus assessing employees' expectations and delivering accordingly is one prerequisite for retention. Finding something that employees would like, but are not expecting, and providing it helps to set a company apart from others

by showing appreciation for the staff, leading to a better working climate and word-of-mouth that might help to attract personnel from the employees' social circles.

Social benefits

Flexible working hours. Employees, who believe they have the option of adapting their schedule if need be experience a reduction of work-life-conflict. The mere perception is sufficient (Richman, Civian, Shannon, Hill & Brennan, 2008). This shows that the respondents' statements expecting flextime from their employers can be explained by previous research. Grzywacz, Carlson and Shulkin (2008) even found that flexible working hours reduce stress and the risk of burnout, even more so than reducing the working hours. Thus offering flexibility and making sure that employees feel they can use this flexibility can help a company by keeping their employees healthy (Grzywacz, et al., 2008), happy, and more productive (Hill, et al., 2010) without having to invest anything. This makes workplace flexibility the best basis for any retention strategy.

Infrastructural benefits

Workstation. A workstation can influence the opinion of employees in several ways. Firstly, there is the factor that furniture and working equipment have to be adequate for the tasks at hand, otherwise it will cause frustration. But then, there are the aspects of a workstation that show the employee that he is valued as a person, like equipment that goes beyond the expectations. Ergonomic screens or back-friendly furniture are ways to display appreciation and care for employees, since it proves that the companies' concerns go beyond the quarterly figures towards the realization that the people within an organization are what really matters. These extras set the mood in an organization and might make the difference in the long run, because they are what sets companies apart these days. Especially within the students' answers this trend is evident and should be considered by companies when trying to attract new personnel.

Setting. A nice view from the office or the option to sit outside will not be a main attraction factor, as long as pay level, logistics, advancement and other more important factors are not settled. However, enjoying the setting at work can enhance the well-being. Having daylight in the office was found to have a positive effect on job satisfaction, interest value and physical working conditions (Finnegan & Solomon, 1981). Adding a view of nature even enhances these effects (Farley & Veitch, 2001). Thus having a nice view from the office can help to retain personnel, by keeping them satisfied and interested in their job.

Break options. Employees need some kind of motivation to come to work in the morning. If they are bored, they are less productive (Fisher, 1993). Usually one would want to try to stimulate employees by the work itself, but there are other ways to achieve this on slow days or when the topic just is not fascinating in itself. A break room that offers a place for joint activities and games is one way to stimulate employees when they are bored, but also a way to give them the option of taking their mind off a difficult task when they feel overworked, since e.g. computer games have a significant recovery potential (Reinecke, 2009). But also lesser needs, like being able to prepare and consume food or the option of socializing with co-workers are determined by the offered break options and should therefore be of concern for an employer of choice.

5.2.2 Organizational culture

In this subsection the codes that mainly play a role in retention and are categorized as belonging to the main factor of organizational culture are discussed. They include goals with the subheading strategy, processes that make up part of the organizational structure and a major retention factor: the organizational climate, including colleagues, communication and affiliation.

Goals

Strategy. A company's strategic decisions of a company can influence the attraction and the retention of employees. Whereas the scope of products is visible to potential personnel before starting a job, and therefore should be seen to be able to affect attraction, strategic decisions that e.g. foster creativity or innovation by either setting specific goals or offering employees time to develop new ideas are mainly a factor that plays a role in retention. The strategic decision to encourage employee input can lead to motivated employees and better results (Miller, 2006). Still, as with other factors discussed in this study, the strategy that is lived in a company has to match the one that is communicated to the outside world. That way the expectations of new personnel can be met, which is a main requirement for retaining adequate employees (Guest & Conway, 2002; Robinson, 1996). Also it is important to mention in this context that consistency is key when trying to attract and retain talent. The decision to implement a people strategy is, as the name suggests, a strategic one, but also must be strategically administered in order to be successful. This means that the different practices a company implements have to add up to a concept that matches what the company stands for and wants to represent, because a humans' acceptance is highly related to the consistency of a proposition (Kassin, et al., 2007).

Organizational structure

Processes. The processes an employee encounters when working for an organization are manyfold. What is true for all of them is that either consciously or subconsciously the employee will match them to the psychological contract that was formed by joining the firm (Rousseau, 1989). All structures, like communication structure, supervision, and rules, have to be clear to the staff and consistent with each other and the overall organizational culture, since dissonance is a condition that arouses psychological tension in people which leaves them trying to reduce that unpleasant state (Festinger, 1957; Cooper & Fazio, 1984). For new employees, that have not yet been fully incorporated into the group, the easiest way to

reduce this discrepancy would be to leave the organization. In order to retain employees the practices within an organization have to match the promises made and need to be consistent.

Organizational climate

Colleagues. The number of answers on colleagues and the closely related concept of communication shows that colleagues are a main factor when dealing with employee retention. They influence the organizational climate a great deal and offer a feeling of belonging. Colleagues that make employees feel welcome help to build a company in-group that leads to higher commitment to the firm, because the employee identifies with it (Kassin, et al., 2007). Also, in a more direct way, a person builds ties with co-workers that intertwine this person with its environment, impeding the possibility for turnover by raising the number of links (Mitchell, et al., 2001). Thus fostering good relationships within teams, but also between superior and subordinate, should be a concern for companies trying to retain their employees. Actions that can be taken to nourish relationships are manifold and can include, but are in no way limited to, the provision of a kitchen or the like where people can meet up for lunch or organizing team events. Anything that gives people the opportunity to share time in a more informal setting helps to form deeper bonds, because they have time to share personal issues (Sias & Cahill, 1998).

Communication. Communications, so it seems, is another main factor in retaining employees. Informal communication, especially the informal form of address, is a factor most respondents value, since the use of the first name indicates closeness (Besch, 1996) and leads to a greater sense of inclusion and membership in the organization (Morand, 1996). The extent to which communication plays a role in retention is greater, though. Short communication paths and the closely related concept of support also play a role. Being able to ask for help and talk to superiors without having to schedule a meeting helps to solve problems in an efficient way. Not only did the respondents argue that this is an important

aspect, effective communication was also found to enhance work motivation and satisfaction in managers (Orpen, 1997).

The last main aspect of communication found in the data is the information policy concept. Respondents agree that open and clear communication is desirable, because it helps to prevent disappointment. This can be explained by the psychological contract that forms between a company and the employee. This contract is constantly adapted and verified by the employee, and can lead to disappointment and even turnover when the expectations are not met (Kickul, 2001; Robinson 1996). Informing employees about changes or figures does not only help to raise realistic expectations, but also decrease uncertainty which helps people cope with their decision processes (Kassin, et al., 2007).

Thus it can be helpful for companies to be clear and open in what they communicate, but also in how they communicate and the ways they offer their employees a say.

Affiliation. Respondents agree that affiliation is an important factor of retention. Sharing activities in a less formal setting than the office helps to build relationships and therefore caters to those needs that build the border between lower and higher order needs (Maslow, 1943). Thus in order to have a productive workforce striving for innovation, companies should encourage their employees to form bonds within the organization, helping them to satisfy lower order needs in order to pave the way for innovative ideas that might be the result of self-actualization needs (Maslow, 1943). To do this, companies can engage their employees in affiliation activities or by offering them spaces or objects that facilitate gathering, such as a breakroom or a pool table.

5.2.3 Work content

Another main retention factor, since respondents dread monotony, is the variation of tasks, which is discussed in the following.

Tasks

Variation. Working on different tasks is important to the respondents, since it prevents monotony and boredom. While it seems common knowledge that those states are undesirable, it should be mentioned that paired with high arousal factors such as time pressure they can even lead to stress that can be measured physically (Thackray, 1981; Melamed, Ben-Avi, Luz & Green, 1995). Thus preventing monotony does not only help to keep morale and performance high, but also can prevent physical issues caused by stress (Melamed, et al., 1995).

5.2.4 Professional development

The concept of advancement is featured in this subsection, that explains why career opportunities are necessary in retaining staff.

Advancement

Career opportunities. It can be said, that people in general want to have career options. That means being offered some kind of variety during their professional life in terms of changing tasks or taking on more responsibility, either within their existing job description or in a position higher on the career ladder. A company needs to consider, however, that if they hire a lot of competitive people they will want to climb the career ladder. If that option is not available at the company and there are no other possibilities to act out that competitiveness, e.g. through competitive pay systems, these employees are likely to eventually look for satisfaction of that need somewhere else, possibly in a new job.

5.2.5 Subjective measures

This last section of factors focuses on the relevance of fun in the workplace that can help to keep people within their current position.

Fun

Closely related to variation is one aspect of the concept of fun, namely challenging work. The respondents reported that challenging work is one main factor that influences fun, which in turn helps to keep people in their job. It can be argued that knowledge workers in the IT sector are intelligent, thus having a rather high capacity for highly demanding tasks. If this capacity continuously is not needed, because tasks are not stimulating in itself or lack diversity, people tend to be bored with their job, which can impair their performance (Fisher, 1993) and leave them agitated and emotionally upset (Robinson, 1975). Another aspect that is reported as fun is the solving of different problems. Solving a problem leads to an instant gratification that offers intrinsic motivation to employees and leads to a general contentment with their work, building the basis for experiencing fun in the task itself.

5.3 Implications

This section deals with the issues that arose while conducting this study and the recommendations for practice and research.

5.3.1 Limitations

The main shortcoming of this study is that due to the nature of data collection it was not possible to assign the statements to the respondents, making demographic clustering impossible. This is unfortunate, since the priorities of the respondents seem to shift according to the life stage they are in. Also, since this study was conducted in small groups, there might be some level of self-report bias, because people tend to alter their answers to make the socially desirable (Donaldson & Grant-Vallone, 2002). This was counteracted in part by discussing hypothetical organizations in addition to the actual ones, but self-report bias remains a possibility. Another issue is that this research did not succeed at arriving at an exhaustive view of factors, but helped to raise awareness to a much more important aspect of attraction and retention: The importance of knowing thy employee.

So, the factors that are highlighted in this thesis are – against the initial ambition – far from being exhaustive. They are, however, still extremely valuable, since they reflect current priorities of the target group. Researching attraction and retention as main aspects of employer branding opened up a view of a field so complex – incorporating organizational, psychological, social and environmental factors – that it became obvious that the goal of reaching an exhaustive overview goes beyond the scope of one master thesis. It is even debatable whether such an exhaustive list of factors is achievable, since the decision processes of employees are not static and might include other factors tomorrow. Still, understanding the needs of the target group is the key to building an employer brand.

5.3.2 Recommendations

The following paragraphs offer a number of recommendations for practice as well as research that can be extracted from the study at hand.

Recommendations for practice

The necessity of understanding the needs of the target group leads to the main recommendation for companies looking to create a strong employer brand or implement a successful people strategy. There is nothing more valuable than asking the staff or potential employees directly and respond to the emerging needs, because attracting and retaining talent is a process that is in constant flux, it calls for creative approaches and constant reevaluation in order to really offer a competitive advantage. Companies mimicking people strategies of others might not fully miss out on attracting and retaining personnel, but they will always be a step behind the ones that use originality to excel. Thus, the factors of this and other studies should be seen as reference points that can be used to start off on an individual EVP based on the interests of the respective organization, its employees and its stakeholders. Companies should select and contrive practices that match their values, in order to keep discrepancies minimal. However, there are some factors that are universally

applicable. A flexible work time policy is always a good place to start, because it only offers positive outcomes for both sides. The offered salary should not be too far below average, otherwise this prerequisite will not be met. Companies looking for innovative ideas should encourage and reward participation either by facilitating think tanks, or offering individuals and groups monetary incentives or praise.

Since people keep reevaluating explicit as well as implicit promises and matching them to their perceived reality (Rousseau, 1989), companies would be well advised to be open and honest right from the beginning, so that the psychological contract will not be breached (Kickul, 2001). Next to providing relevant information for existing employees, to keep them up to date, companies can also consider to start their information policy much earlier in the process of attraction, for example by approaching students or job seekers personally at job fairs or an open house, since personal communication is still the most effective way of communication (Daft & Lengel, 1984), or through a company website that offers information that job seekers need to assess the identity of a company.

Recommendations for research

Researchers looking to advance this field of study should start by trying to arrive at a coherent terminology, since as indicated in the theoretical framework, several terms to date can be and are used interchangeably. A coherent terminology could build the basis for a holistic approach that is used to understand the full extent of the processes behind the employer brand. Organizational interactions and how they affect employees' assessment is one aspect that would add to the existing theory. Another study that can help to understand and simplify this vast concept is a longitudinal study, e.g. using Q-sort, of the shifting priorities of employees. This can help to identify clusters of factors relevant in different life stages. Also, it would be interesting to compare different target groups, thus conducting similar studies in other fields.

6 Conclusion

In this chapter, the main findings and overall value of this study for research and society are summarized.

The main finding of this thesis is that not one factor makes or breaks a job. Every decision about joining or staying with an organization is influenced by an array of factors, including, but not limited to, psychological and environmental considerations. The weighing of relevant factors is mainly influenced by personal priorities, begins before people even apply for a job, and is continuously reassessed during the employment (Robinson, 1996). The assigned relevance of these factors is different from person to person to start with (Kristof, 1996) and shifts for each individual according to changes in their personal life (Amundson, 2007), like being in a relationship or having a child. Also, many of the factors discussed above are, although separated into attraction and retention for the sake of structure, relevant to both choice processes, since attraction factors are seen as promises that are later evaluated, or factors that would keep a person in a job, if known beforehand, might tip the scales in favor of taking a specific job.

Additionally, it can be argued that in our globalized world, where large fragments of the job market are using the widely known ‘best practices’, the small things actually might make the difference in the long run. A chocolate Santa might not seem like a retention tool to many managers, but it is not common and it is a symbol of appreciation and care, thus potentially embodying the values a company wants to represent. These little things are a possibility for distinction for organizations, because major factors are similar in many companies, often giving the corporations an advantage qua financial incentives. However, a distinction from the masses is necessary, because deviating from the norm leads to visibility, which is the prerequisite for an employer brand (Schumacher & Geschwill, 2009).

Whereas many previous studies have approached the concepts of attraction and retention from a management or a benchmarking standpoint, this study adds to the existing

research by offering a new viewpoint to employer branding. The bottom-up strategy of this research ensures that the factors shown actually have a relevance to the target group. While the factors are not generally exhaustive, they do convey the needs and requests of the specific target group of information technology specialists at this moment in Münster. This does not make the findings universally applicable, but it offers a new piece of the vast puzzle that is employer branding.

In conclusion it can be said that this study is another step on the way to a holistic view of the concepts of employee attraction and retention, which can help companies to achieve and communicate the status of employer of choice and give the talent what they want and deserve – a great place to work.

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Appendix

Appendix I: Focus-group guidelines

1. **Step: Getting to know the respondents with questions to ease into the situation and the question at hand:**

Introduction and an introductory question: „What is good about the job/field?“ **(5-10 Min)**

2. **Step: Answering the research question. (~ 60 Min)**

Research question: What factors do people consider in a job in the IT sector?

- *What factors do people consider when looking for a job? (12-15 Min)*
 - How do you look for a job?
 - What are the basic requirements for you to start working for a company?
 - What is the most important factor and why?
 - What are „no-gos“?
- *What expectations do people have towards an employer?(12-15 Min)*
 - What do you expect from your employer?
 - What do you expect your company not to do?
- *What factors make the ideal job/company? (10-12 Min)*
 - Do you have good experiences? What are they?
 - To be the ideal job, what would you improve in your current position?
 - What factors make a job/company less than ideal?
- *What makes you stay at your current job? / What makes you stay in your field of study?(Right choice?) (10-12 Min)*
 - What do you like best?
 - What is the „plus“ to the basics that keep you in the job?
- *What are the plans for the future?(5-10 Min)*
 - Where do you see yourself in 10 years? (Same company? Still learning? etc?)

Appendix II: Audio files

Can be found on the included USB-drive in the folder Appendix II under Audio_1 – Audio_5.

Appendix III: Transcripts

Can be found on the included USB-drive in the corresponding folder under Transcripts_coded and Transcripts_uncoded.

Appendix IV: Codebook

Categories	Concepts	Codes	Examples
Benefits	Monetary	Salary	Pay, raise
		Bonuses	Success fee, company car, profit share, Christmas bonus
		Provision/Pension	Pension
	Social	„Goodies“/Courtesies	Sparkling wine, chocolate Santa, free coffee/beverages
		Flexible working hours	Flextime, homeoffice, sabbaticals,
		Free time	Working hours, Vacation time, overtime, travel
	Infrastructural	Compatibility of family and work	Company kindergarten
		Job security	Contracts, company growth
		Logistics	Commute
		Workstation	Hardware, software
		Setting/environment	Building, offices, exteriors
Organizational culture	Goals	Break options	Catering options, common rooms, recreational options
		Demand for experts	Easy job search
		Vision	Innovation
	Organizational structure	Strategy	
		Success	
		Image	
	climate	Organigram	Hierarchy
		Processes	Autonomy, Pressure, Feedback
		Colleagus	Leadership skills, sense of community
		Values	Support, respect, freedom, self-responsibility, autonomy, trust, fairness, sincerity
Work content	Topic	Communication	Having a voice, 'open ear', tone
		Affiliation/Team-building	Christmas party, staff outings
		Technical background	Coding language, software, variety, clear rules
		Subject matter	Geoinformatics, interest, actuality, theme, raison d'être of a firm, projects (variety)
		Relevance for society	Reach, actuality, revolutionary discoveries, link between fields
		Variation	
Professional development	Tasks		Input, reach, relationship
	Clients		Career ladder, change of departments, relocation
	Advancement	Career opportunities	Conferences, constructive criticism, feedback, trainings
Subjective measures	Growth	Learning opportunities	
	Cost-benefit-analysis		
	Fun		