GENERATIONAL DIFFERENCES IN WORK PREFERENCES

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PREFACE

This master thesis is the result of a seven-month period of research at TNO Science and Industry. Together with the process of coming up with an interesting subject, a suitable research design and writing this final report, I have dedicated the last nine months to this project. One of the requirements I had for the subject of my master thesis was that the subject had to be concerned with a current issue. Also, my research had to have direct practical relevance. My supervisor of the University, Maarten, introduced the generational issues that seem to give problems in practice which I translated into my own research design. TNO provided me with the freedom to transform my own ideas into a research design that was also of practical relevance for them. This process did not always go as smooth as I might have wished. Thanks to the help of my supervisors at TNO, Kitty and Saskia, and my supervisors at the university, Maarten and Peter, I was able to 'stay on the road' (be it with some detours) resulting in this final report.

I would like to thank Kitty and Saskia and the entire HRD-team of TNO Science and Industry for their contribution to this report. Not only for their valuable feedback on my thesis but also for the opportunities to look around within TNO, develop myself and learn about the practice of HR.

Of course both my supervisors had a great influence on the process of this study. Having a tendency to be reluctant on asking for help and trying things on my own, their feedback helped me to regain the focus on the main issues instead of side-issues. This resulted in recovered motivation after every meeting and a clear view on what to do next.

Finally I would like to thank my close environment -family and friends - for their interest in my research. Their help in seeing things in perspective and reviewing my report were crucial for the results.

Thanks for your support!

Joost Hoff

SUMMARY

This study aimed at getting more insight in the work preferences of the youngest generation (born after 1985) and the differences with work preferences of older generations. The increasing numbers and influence of the youngest generation on the labor force brings up the necessity for organizations to become attractive as an employer.

Using type of work and work environment as predictors of the recruitment outcomes organizational attraction and acceptance intentions, a questionnaire was developed which operationalizes the constructs that are mentioned by the youngest generation as being the most important. This questionnaire consisted of 7 constructs which in turn were measured by a total of 15 scales. Two samples of respondents were used (students and workers) which also made it possible to distinguish on work experience.

The results showed that there were two types of differences. On the one hand differences in kinds of preferences, expressed by different operationalizations of the constructs. This was the case for the constructs; ‘challenge’, ‘task significance’, ‘transformational leadership’ and ‘promotion opportunities’. On the other hand differences in the levels of preferences were found which indicate that some aspects were preferred more or less by the youngest generation. Three scales were valued higher by youngsters. This was the case for ‘social support’, ‘transactional leadership, management-by-exception’ and ‘promotion opportunities’. Contrary, four other scales were valued significantly lower by the youngest generation. This was the case for ‘task significance’, ‘flexibility’, ‘transformational leadership’ and ‘social responsibility’.

It can be concluded that there are differences in work preferences between the youngest and older generations. The results can be used to shape the aspects that are most preferred to the definition as used by this youngest generation. However, as the found differences were relatively small and more similarities could be noted, the overall conclusion is that the youngest generation does not seem to be as drastically different as popular press suggests.

INDEX

1. INTRODUCTION

One of the biggest challenges for organizations in the coming years is the retirement of a large number of older workers and replacing them with a new generation of workers (Twenge, Campbell, Hoffman, & Lance, 2010). In the Netherlands, 1.5 million people will leave the workforce in the next ten years. In the same time period though, 1.6 million youngsters are expected to enter the workforce (CBS, 2009). However of the people that will leave the workforce, approximately one third has a technical background opposed to only one fourth in the group that will enter the workforce (De Beer, 2006). This larger outflow means that workers with a technical background might become scarce in the near future. Moreover, employees nowadays also have to be able to keep up with the fast pace of change in environment and technologies. Since young people grew up with most of the newest technologies, they are expected to be more capable in making good use of the newest trends (Burke & Ng, 2006). This quality of the youngest generation will make the ‘war for (technical) talent’ for the best and brightest youngsters even harder.

With 1.6 million youngsters entering the labour market, this generation will play a considerable role in the Dutch labour force. This might be the cause of an even bigger challenge in attracting young talent. In the last few years research suggested that the newest generation of workers has its own view on work (Twenge et al., 2010) and a drastically different work mentality compared to that of older generations (Manpower, 2006; (Cennamo & Gardner, 2008). In order to be able to become and stay attractive for young talent, organizations will have to understand the way this youngest generation of workers thinks about work and what they prefer. The literature on work preferences of this new generation is yet still limited and most research is targeted to a general population. However, it has been proven that other variables such as academic achievement (Trank, Rynes, & Bretz, 2002) and sector also play a considerable role in the preferences for work (Gilbert, Sohi, & McEachern, 2008).

Therefore, the present study attempts to get more insight into the work preferences of a specific group of members of the youngest generation. For this purpose the research was conducted within TNO which is a large Dutch research organization. People who work at TNO generally are highly educated and have a technical background. As most organizations, TNO finds itself in the war for talent and acknowledges the need for a better understanding of the youngest generation in order to become an attractive organization for young talent.

All of the above results in the following question: *Do the work preferences of technical youngsters differ significantly from that of older technical generations, and if so, on which aspects?* Thus, the goal of this study is twofold; on the one hand, testing whether the youngest generation really has work preferences that are characteristic for its generation in comparison with older generations. On the other hand an attempt is made to get more nuanced information of which aspects of work or organizations are especially preferred by a specific group of the youngest generation. More specifically, a questionnaire is designed that operationalizes work related constructs to a more concrete level.

2. THEORETICAL FRAMEWORK

In this first chapter the theoretical concepts relevant for this research are explored and elaborated. First, organizational attractiveness and its predictors are discussed. Second, the theoretical background of work design is elaborated and third the influence of generations is explored. This will eventually result in the main research question and research model.

2.1 ORGANIZATIONAL ATTRACTIVENESS

In the 'war for (technical) talent' organizations have to distinguish themselves from their competitors. In order to do so, they have to become attractive as a potential employer for this group of talent. Therefore in the next part the following question will be addressed: <u>What is organizational attractiveness and how can it be achieved?</u>

In their attempt to examine the dimensionality of organizational attraction Highhouse, Lievens & Sinar (2003) recognize three ways of looking at organizational attractiveness as seen from the perspective of an individual. One way is to look at attractiveness in a strict sense, consisting of affective and attitudinal thoughts individuals have about an organization as a possible employer. An example of a question that assesses attitudes is: '*This company is attractive to me as a place of employment'.* In a wider sense, organizational attractiveness could also encompass intentional components. Intentional components refer to the intentions individuals have towards performing certain behavior. To asses specific intentions items are stated as follows: '*I would exert a great deal of effort to work for this company'*. Finally, attractiveness can be conceptualized by prestige components. These components represent a consensus about positive and/or negative characteristics of an organization. A question that concerns prestige components is: '*There are probably many who would like to work at this company'*.

Hedund, Andersson & Rosén (2009) define attractive work as follows: '*work/organization is attractive if a person is interested to apply for it, wants to stay and is engaged in it'.* This definition implicates that there are several stages in which attractiveness can be evaluated. In every stage an individual can use one or more of the ways of looking at attractiveness as described by Van Hoye & Lievens (2006).

This idea of several stages of attractiveness is also represented in Barber's model of recruitment (1998). This model recognizes three stages of recruitment and instead uses an organizational perspective. The first stage concerns the generation of applicants, and is all about persuading some portion of the population to apply for positions. The second stage, maintaining of the applicant status, considers keeping the applicant interested after initial contact has been made. The third stage, influencing job choice, can be seen as the final effort to persuade the applicant to work for the company. In this research, the main question is concerned with what makes an organization attractive in the first place. Maintaining an applicant's status or influencing job choice (stage 2 and 3) are therefore not yet relevant. For this reason, I will concentrate on the first stage of the recruitment process.

2.1.1 THEORETICAL APPROACHES OF ORGANIZATIONAL ATTRACTION

In this first stage, the main goal is to attract potential applicants to apply. There are several theories that try to explain why some individuals are attracted to specific organizations where others are not. First of all, two streams of theories on attractiveness can be distinguished.

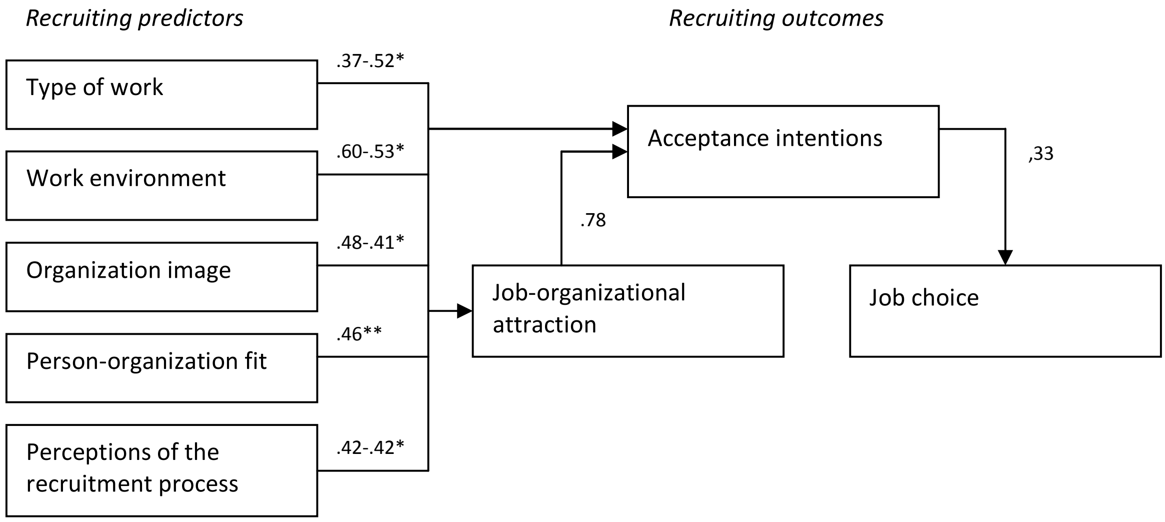
The first stream states that it is mainly factors outside a person's individual characteristics that influence the perceived attractiveness of a company and thus leaving personal characteristics out of consideration. Three fundamental theories have been presented in this stream of research (Behling, Labovitz, & Gainer, 1968): critical contact theory or signaling theory, objective factors theory and subjective factors theory. Critical contact theory assumes that, because people don't have sufficient knowledge about potential employers, they base their evaluation of a companies' attractiveness on their contact with agents of the company. Objective factors theory on the other hand states that, rather than the contact with a company, it are the objective and economic factors like pay, fringe benefits and location of the company that determine the attractiveness of an organization. Finally, the subjective factors theory disagrees with the importance of objective factors and states that it is mostly the prestige or possibilities for self actualization that determine the attractiveness of a company. There have been evidence for all three theories, but later on I will discuss which of these theories is most influential in my research.

The second stream of research does incorporate these personal characteristics and states that the attractiveness of an organization in the exact same circumstances can differ due to individual differences. Some people for example, only like to work for a large company whereas others prefer to work in smaller organizations. Part of the second stream is the more elaborated Attraction-Selection-Attrition-framework (ASA) of Schneider (Schneider, 1987). This framework distinguishes three phases which eventually should lead to a match between the interests and personality of a person and that of the company. In the attraction phase, individuals evaluate their level of attraction to a company. Subsequently the organization makes the same consideration in the selection phase resulting in the selection decision. Finally, after entering an organization, employees that do not fit the company after all will leave the company in the attrition phase. The ASA-framework implicates the importance of a 'fit' between a person and an organization (Kristof-Brown, Zimmerman, & Johnson, 2005). According to Piasentin & Chapman (2006) there are three ways to conceptualize this fit. First of all a distinction can be made between a supplementary and a complementary fit, describing a fit based on similarity versus a fit based on added value through diversity. Second, a fit can be based on a demands and abilities framework. This fit focuses on matching the knowledge, skills and abilities of a person with the requirements of the job. The third type of fit is the fit based on needs and supplies. This form of fit occurs when employees' needs, desires, or preferences in a broad way are met by the jobs that they perform (Kristof-Brown et al., 2005). The broadest way of conceptualizing fit is the person-environment fit which encompasses the evaluation of a fit on values, goals, interest and personality between a person, an organization, a job, a group and/or a supervisor. Especially the fit on personality has received a lot of attention with the RIASEC-personality types of Holland (1985) being the most influential model. Since fit can be perceived on different aspects, all three theories of Behling could be used in the fit approach. In the next part though, I will discuss the outcomes of a meta-analysis that provides insight in which theory/theories will be most influential in my research.

2.1.2 PREDICTORS AND OUTCOMES OF ORGANIZATIONAL ATTRACTIVENESS

In an effort to explore the relations between predictors and recruitment outcomes, Chapman et al. (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005) combined 70 studies concerning the evaluation of attractiveness by applicants in a meta-analysis to try to find out which factors are the best predictors of recruitment outcomes. The relationships and correlations between predictor and outcome variables are presented in figure 1.

Figure 1. Conceptual model as presented by Corporaal, derived from the results of the meta-analysis by Chapman et al. (2005)



* *p* = " coefficient corrected for the unreliability of predictor and criterion". The first *p* value is related to job-organization attraction as an outcome whereas the second *p* value relates to acceptance intentions.
** direct relation with acceptance intentions not known

Six predictors were distinguished; all three fundamental theories of Behling (1968) can be recognized in at least one of the predictors: Job and organizational characteristics (objective factors theory), recruiter characteristics (critical contact theory), perceptions of the recruitment process, perceived fit (subjective factors theory), perceived alternatives and hiring expectancies.

Furthermore, four different outcomes of recruitment were explored. First of all the intentions of the applicant towards job pursuit are considered. In practice this means that if a person is attracted to a certain organization he will be expected to show intentions to look and apply for a job without committing to a job choice. A second outcome of organizational attractiveness could be that a person shows intentions towards accepting a job offer of a certain organization. Two situations could be the case with this outcome; the situation where a job offer is already made and the one where it's not. Speaking in terms of 'fit', the third outcome of an attractive organization is the extent to which a person perceives this job-organizational attraction. This outcome concerns attitudinal thoughts. The fourth and final outcome variable, which has shown to be the hardest to predict, is eventual job choice. This outcome variable surpasses the other three outcomes in that it concerns actual behavior instead of intentions towards certain behaviors.

One of the goals of the meta-analysis was to examine the strengths and patterns of the relationships between the outcome variables. Due to a lack of correlation between job pursuit intentions and the other outcome variables, job pursuit was omitted from the analysis. It can be seen in figure 1 that acceptance intentions and job-organization attraction had a high correlation (*r* = .67 and .78) whereas correlations with job choice behavior were low, acceptance intentions being the highest (r = .33). According to Chapman et al (2005), an explanation for the low correlation with job choice could be that in order to make a job choice decision, first a job has to be offered. Since the intentional and attitudinal outcomes were mainly measured before a job offer was made, respondents may have adjusted their perceptions to match their behavior after a job choice decision (Chapman et al., 2005). So job choice might be dependent on more factors than reported in this study and as Ployhart notices: 'given the nominal nature of job choice measures, one must wonder how large this effect should be' (Ployhart, 2006).

In an examination of the relationships between the predictors and organizational attraction and other outcome variables it appeared the direct effect of predictor variables on job choice were all low with correlations ranging from .07 to .17. When looking at the correlation between the predictors and the other outcome variables; job and organizational characteristics and perceptions of person-organization fit (PO-fit) were the overall best predictors of recruiting outcomes (Ployhart, 2006). Looking closer at the sub-categories of the predictors, it appeared that five factors had especially high correlations. These factors are: type of work, work environment, organization image, person-organization fit and perceptions of the recruitment process (figure 1).

Of these five predictors, the work environment had the highest correlations, both with job-organizational attraction as with acceptance intentions. Type of work also has a high correlation with acceptance intentions but a moderate correlation with job-organizational attraction. Further, the organization image and perceptions of the recruitment process have moderate correlations with both acceptance intentions and job-organizational attraction. Person-organization fit finally correlates moderately with job-organizational attraction and the correlation with acceptance intentions was not known.

2.1.3 FOCUS

In this study the focus will be on the type of work and work environment. There are three motivations for this choice:

First of all, in the meta-analysis of Chapman et al. these two factors have proven to have the highest correlations. In the case of acceptance intentions type of work and work environment are the two factors with the highest correlation. In case of organization attraction, work environment has the highest correlation. Hence these two factors are the most interesting to study.

Second, it's plausible that the perceived fit, which is the second highest category of predictors, is established through job and organizational characteristics. As Kristof-Brown et al. (2005) describe, one of the attributes on which a fit can be perceived are preferences. So it could very well be that an individual perceives a 'fit' with an organization based on their type of work and work environment. In that case, it is in fact the type of work and work environment that are the key in establishing a fit.

Third, as stated before this study concerns general attractiveness of any organization. This implicates that attractiveness is evaluated without one particular organization in mind. Since perceptions of the recruitment process are established after going through a part of a companies' recruiting process, this predictor is not yet relevant.

With the focus on type of work and work environment, the focus area is expressed in terms of the theories that are presented above. As stated before, type of work and work environment are subcategories of the predictor job- and organizational characteristics. This predictor category best suits Behlings' objective factor approach (1968). However, as the meta-analysis showed that the person-organization fit also has a moderate correlation with job-organizational attraction, the fit approach is also relevant. When combined, these two theories form the approach of individuals evaluating attractiveness of an organization by the perceived fit on the type of work and work environment of an organization.

2.1.4 LIMITATIONS

Despite these conclusions, a few limitations of the meta-analysis remain which have to be mentioned. There seem to be three problematic issues: first of all, as already mentioned by the authors in the meta-analysis, the respondents in the research are mostly college graduates from American universities. Since I will execute my research in The Netherlands some cultural differences may come into play as Hofstede (Hofstede, 2005) shows that the Netherlands and the US differ on some cultural dimensions. For example, the Netherlands score much lower on Hofstede's masculinity-dimension than the US, which could lead to differences in the preference for masculine work characteristics (Hofstede, Neuijen, Ohayv, & Sanders, 1990)**.**

Second, the respondents are discriminated on age, gender and the nature of the respondents (true applicants or experimentally acting applicants). However, as Trank et al. (2002) found in their research, the achievement level of applicants also influences work preferences. When students have high academic or social achievement they tend to prefer different work characteristics compared to their lower performing colleagues (Trank et al., 2002). For example, high performing students seem to place greater importance on interesting and challenging work compared to other students (Trank et al., 2002).

Third, the study of Gilbert et al. (Gilbert et al., 2008) shows us that work preferences differ between professions. For example people that work in marketing and budget & finance value an influence on time management significantly more than people working in other sectors. Therefore the sector in which I will perform my research might also influence the outcomes and generalizability of the results.

<u>In conclusion</u>

In the part above it became clear that organizational attractiveness can be interpreted and predicted in different ways. Looking from a job-seeker perspective, job organizational attraction and acceptance intentions seem to be the most valuable outcomes. The most important predictors for these outcomes seem to be the type of work and the work environment. In the next part I will further discuss these two factors of interest: type of work and work environment.

2.2 WORK DESIGN

Following from the previous, there seem to be two factors that can best be used in this study to predict organizational attraction. Because these two broad factors can be conceptualized in different manners, the next part will answer the following question: <u>How can the type of work and work environment be characterized and measured?</u>

Type of work and work environment, are somewhat attached to each other and can be combined in the construct work design (Morgeson & Humphrey, 2008). In order to define both constructs a short summary of the history of work design will be given.

2.2.1 OVERVIEW OF WORK DESIGN

Ever since the introduction of the Scientific Management approach by Taylor (1911) the focus has been on work design as a way to improve performance. Taylor focused on the division of labor to simplify work and consequently use incentive systems to shape and control worker behaviors.

The first insight into the influence of social work characteristics came from the famous Hawthorne studies conducted between 1924 and 1933 (Morgeson & Humphrey, 2008). In an initial attempt to evaluate the effect of brightness of light on productivity a different effect was accidentally discovered. It showed that it was not altering the brightness of light that increased productivity but rather the attention of researchers. This was the first proof of the strength of social aspects in work.

Building on the concept of influencing workers behavior a next breakthrough in work design research was the work of Herzberg, Mausner & Snyderman (Herzberg, Mausner, & Snyderman, 1959). In their work they developed the motivator-hygiene theory. This theory distinguishes intrinsic and extrinsic factors. The intrinsic factors concern aspects of the work itself and can result in job satisfaction (motivators). The extrinsic factors concern aspects of the broader work context and result in no job satisfaction (hygiene factors). This theory was the first to state that job satisfaction and no job satisfaction have different causes and that only intrinsic factors determine job satisfaction.

Since this theoretical separation of intrinsic and extrinsic motivations, scholars have given the most attention to the intrinsic factors affecting job satisfaction. Hackman & Oldham (1975) subdivided intrinsic motivations into five different categories: skill variety, task identity, task significance, autonomy and feedback from the job itself. For several decades these categories have been widely used in explaining job satisfaction through work design.

However, with the focus on the intrinsic factors, the influence of social- and contextual characteristics have long been neglected (Humphrey, Nahrgang, & Morgeson, 2007). Morgeson & Humphrey (Morgeson & Humphrey, 2006) stress the importance of this social dimension once again, their reason to do this however, is quite new. They looked at work design with the costs and benefits balancing issue in the back of their heads. As expected, task and knowledge characteristics were motivating factors in work design. However, these factors are also associated with training and compensation requirements which bring along extra costs. In their research they hypothesized that the social dimension were able to increase motivation without increasing the training and compensation requirements and accompanying costs. Proof was found for this hypothesis and suggests that social dimensions can add to the motivation of personnel with the extra benefit of negative correlation with training requirements and accompanying costs (Morgeson & Humphrey, 2006).

2.2.2 DEFINITIONS

With this development in mind 'type of work' can be defined as: '*the aspects that are directly related to the job activity'* (Jelstad, 2005). This definition incorporates the intrinsic as well as the extrinsic factors associated with work. The work environment can be defined as: *'the day-to-day social and physical environment in which you currently do most or all of your work'* (Amabile, Conti, Coon, Lazenby, & Herron, 1996). By definition, a healthy work environment is: a work setting in which policies, procedures, and systems are designed so that employees are able to meet organizational objectives and achieve personal satisfaction in their work (Shirey, 2006).

2.2.3 MEASURES USED IN THE PAST

Work design instruments

One of the most widely used instruments to measure work design is the Job Characteristics Model (JCM) developed by Hackman and Oldham (Hackman & Oldham, 1975). This model measures five factors that together constitute intrinsic motivations to work. The instrument was designed to determine a Motivating Potential Score (MPS). In establishing this MPS, autonomy and feedback from the job were given relatively more weight than the other three factors; skill variety, task identity and task significance.

Additionally, an important moderator variable had to be reckoned with as well: the individual growth-need-strength (GNS). This GNS encompasses someone's need for challenge, development and learning, was found to be of crucial importance. Even though the JCM is a much validated scale it is limited in its use since it only uses intrinsic factors. As said earlier, intrinsic factors can be associated with job satisfaction where extrinsic factors are associated with job dissatisfaction. Since the evaluation the attractiveness of a job/organization is concerned with positive as well as negative aspects, the JCM won't suffice to measure work preferences.

The first attempt to add to the sole us of intrinsic factors of the JCM was by Posner (Posner, 1981). He broadened the scope of the JCM by adding the work environment. In his work he clearly distinguished two categories; the job itself and the company/work environment. He further elaborated type of work and work environment into 9 distinct categories for each construct (figure 2). This scale however is stated in very general terms. For example, one of the items asks for the need for challenging and interesting work, which of course is subject to interpretation. Since I'm interested in more specific preferences concerning work content, this general scale also won't suffice.

In the development of the Work Design Questionnaire (WDQ), Morgeson & Humphrey (2006) reviewed existing instruments to create a more complete picture of work design. In addition to the task characteristics, which hold all five factors of the JCM, they introduced three other domains: knowledge characteristics, social characteristics and work context. By doing this, they also introduced a social perspective to work design. Looking at the earlier described developments in the nature of work, the knowledge characteristics and social characteristics especially are valuable additions to work design instruments. The work context on the other hand, has more to do with work that concerns hands-on labor as is found in factories for example.

Figure 2. Measurement constructs used

	Hackman & Oldham (1976)	**Posner (1981)**	**Morgeson & Humphrey (2006)**
Type of work	<u>Job Characteristics</u> Skill variety Task identity Task significance Autonomy Feedback from job	<u>Job itself</u> Opportunity to learn Freedom to do the job my own way Opportunity to use my abilities Variety of activities Opportunity for rapid advancement Challenging and interesting work Opportunity to show supervisor that I can effectively perform Opportunity for extensive travel Job title	<u>Task characteristics</u> Autonomy Work scheduling Decision-making Work methods Task variety Task significance Task identity Feedback from job <u>Knowledge characteristics</u> Job complexity Information processing Problem solving Skill variety Specialization
Work environment		<u>Company/work environment</u> Competent and social coworkers Type of work or service performed Location of work or company Reputation of company Training programs Salary Job security Fringe benefits Size of company	<u>Social characteristics</u> Social support Independence Initiated Received Interaction outside the organization Feedback from others <u>Work context</u> Ergonomics Physical demands Work conditions Equipment use

Work Preferences instruments

All the work design instruments that are described above have been designed as questionnaires to evaluate work. So they are always administered in a work-context with respondents who already work for an organization. In this research however, I'm interested in the preferences people have for work in general to find out what people would want in their (future) work/organization.

Work preferences are the outcomes of what individuals' desire in their engagement in paid work (Gilbert et al., 2008). Work preferences consist of more than one dimension hence it has been related to work values, job attributes, interests, motivation, temperament and practical work related consideration (Gilbert et al., 2008). Although some dimensions in work preferences and work design can be quite similar, some dimensions used in work design instruments might also require work-experience in order to be able to evaluate it. Instruments to measure work preferences therefore should encompass dimensions that are part of work design and yet still can be evaluated by people who do not have work experience. There are just a few instruments that have been developed to measure these preferences.

The mostly used work preference instrument is the Work Preference Inventory as developed by Amabile et al. (1996). This instrument was designed as: *'a direct, explicit assessment of individual differences in the degree to which adults perceive themselves to be intrinsically and extrinsically motivated toward what they do'* (Amabile et al., 1996)l, 1994).

Two main things that can be derived from this purpose are that it looks for individual differences and it is concerned with both intrinsic and extrinsic motivational orientations. The outcome of this instrument is an insight into the motivational orientation of a person and ignores the other dimensions in preferences for type of work or work environment.

Other authors used different instruments to measure more specific work preferences. In their research Trank et al. (2002) use a questionnaire that encompasses items that assess preferences concerning several dimensions of preferences. In this survey, work characteristics like pay, promotion opportunities and the work itself are considered. Although these scales seem to be useful in my research, they have not been reported as being used in many other researches.

In an attempt to develop a work preference instrument that can be used to gain easy-to-use and quick to gauge constructs that pertain to individual work preferences Gilbert et al. (2008) developed the Work Preference Indicator. This instrument consists of 17 constructs based on psychological areas of study that are conceptualized in a 77-item scale. Regarding the different dimensions of work preferences, the Work Preference Indicator uses learning styles, work values, interests and personality temperament. Not much extra information on this instrument could be derived since the instrument is proprietary.

2.2.4 CONCLUSIONS

As stated before, the main interest of this study is the preferences of youngsters for a certain type of work and work environment. The reviewed work preference instruments don't seem to be entirely suitable to this goal. First of all, Amabile's WPI focuses solely on intrinsic and extrinsic motivational aspects of work and by doing this it misses aspects of the work environment. The scales of Trank et al (2002) seem useful but also don't seem to grasp the full notice of type of work and work environment as defined above. Finally, the WPI of Gilbert et al. is proprietary and therefore cannot be properly evaluated. Also, as described the nature of work has changed which resulted in some aspects getting more important whereas others became less important.

After evaluating the existing work preference instruments, it can be concluded that all instruments use approaches that provide valuable and usable information. However, a different and more important conclusion is that there is not yet an instrument that suits the purpose of this study. In attempt to explore the work preferences of the youngest generation, an instrument is needed that is customized to this goal and only uses variables that are relevant for this generation. In order to adequately evaluate a company's attractiveness for young talent, the way youngsters nowadays operationalize the two factors of interest has to be explored.

In conclusion

In this part the history of conceptualizations of type of work and work environment have been described. Using a job-seeker perspective, the need for a new work preference instrument is established. In the next part, the target group in this research is defined and a description of their work preferences follows.

2.3 GENERATIONS

As stated in the beginning, the group of interest is young, technical talents. Every group has its own characteristics. To be able to understand these specific characteristics, the following question has to be answered: Who are these talents?

The talents we are talking about are highly educated knowledge workers. This group of people starts to look for a job after finishing their studies. Therefore, in this research I'm especially interested in students who are in the final phase of their studies. The average age for Dutch students to graduate for a Masters study is approximately 25 (CBS, 2009). Furthermore, almost 90% of Dutch Master Graduates are 29 years old or younger, meaning students who are born after 1981. To find out some characteristics of this group of 20-somethings I turn to generation studies.

2.3.1 GENERATIONS BACKGROUND

Early in the 19th century the first extensive sociological research on generations was conducted (Bontekoning, 2007). With these influence as the basis of more recent theories, generations can be defined as: '*groups of people who feel connected to their peers in age due to a shared life-history or time experience, shared life circumstances and a shared zeitgeist*' (Bontekoning, 2007). Others cluster people together in a generation on the basis of a 'peer personality' (Howe & Strauss, 1991). More practically, people from the same generation share birth years, age location, and significant life events at critical developmental stage (Kupperschmidt, 2000).

This directly brings us to the explanation of how generations are formed.

When growing up everyone goes through a formative period. In this period you are especially susceptible for culture- or value changes (Becker, 1992 in Bontekoning, 2007). Mannheim considers people at the top of their formative period when they are seventeen years old. Becker (1992) however considers the formative period to last from age fifteen to twenty five. He further explains that it is breaches of trends that result in the development of different generations. Examples are events that have a national or international impact like economic crises or acts of war. It is especially these similar historical and social life experiences that stay relatively stable over time that distinguishes one generation from another (Jurkiewicz & Brown, 1998). One should note that new generations do not develop from scratch. All the environmental influences in the formative period are often results of actions of previous generations. Therefore, some interaction between generations always exists. It has been found however, that there are substantial differences between generations. These differences consist of work- and life values but also different preferences which all result in deviate behavioral patterns (Bontekoning, 2007; Smola & Sutton, 2002). An example of this is a difference in tendency towards taking risk which results in more conservative or proactive behavior (Bontekoning, 2007).

2.3.2 GENERATIONS ON THE WORK FLOOR

Knowing what constitutes generations brings me to discuss the classification of relevant generations. When reviewing the literature on generational classification, I soon noticed that the variance in years of birth and names to distinguish different generations is considerable. These differences can be explained by the fact that some events that form a generation only have a national impact. So where in one country or culture a significant event gives birth to a new generation, in other countries or cultures this event may rest unnoticed. This makes generalizations of characteristics of generational members across countries or cultures quite difficult.

I will discuss two ways of classification, one as used in the US and the other one as used by Dutch authors. Despite the fact that this research will be conducted in the Netherlands, the American classification is still relevant as I will also explore the literature from the US in the next step.

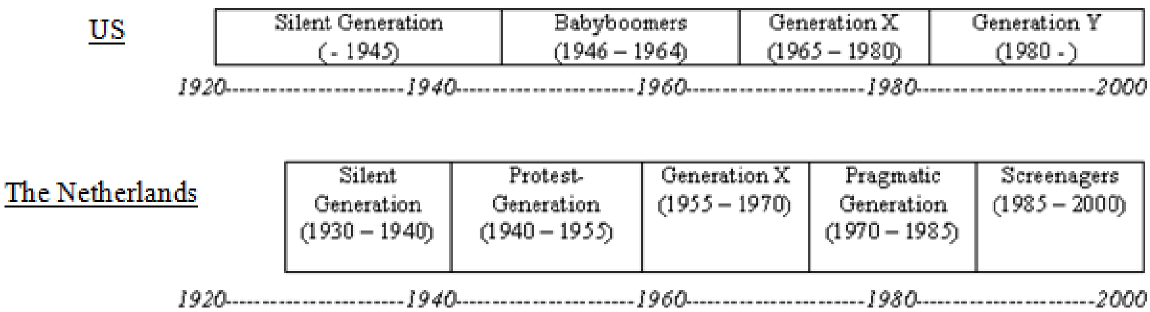
American classification

In the US, the first and oldest generation that is still present in the workplace is the Greatest Generation or also called Silent generation and Traditionalists or Veterans (Eisner, 2005). This generation is born between 1920 and 1946, but sometimes scholars suffice by labeling it as pre-1946 (Zemke et al. 2000). The next generation is born roughly between 1946 and 1960 and is labeled as the Babyboomers. The birth year of where this generation begins vary between 1960 (Zemke et al. 2000) and 1964 (Kupperschmidt, 2000). The next generation is called Generation X and people born broadly between 1960 and 1981 fall into this category. Once again the determined years of birth years vary a lot. For example Eisner (2005) considers people born in the period 1965 – 1980 as Generation X'ers whereas others use the years of birth 1964 – 1976 (Borchardt, 2008). The final generation American scholars distinguish is Generation Y or also called Millenials, Nexters, Echo Boomers, Screenagers or Internet Generation (Eisner, 2005; Smola & Sutton, 2002). The birth years that are considered as borders for Generation Y vary also for example between 1977 and 1994 (Borchardt, 2008), 1982 and 2000 (Zemke et al. 2000) or just people born after 1980 (Eisner, 2005). The four generations as distinguished in American literature are presented in Figure 3.

Dutch classification

In the Netherlands a different generational classification is used compared to that in American literature. Becker (Becker, 1992) and later Van Steensel (2000) and Jeekel (2005) recognized five distinct generation of which the oldest is the Silent generation; born between 1930 and 1940. The next generation is labeled as Babyboomers or Protest Generation but the birth years associated with this classification differ from the American way since this generation concerns people born between 1940 and 1955. In the Netherlands this generation has been characterized by using a power or forcing strategy to convince others and having strong ambitions (Becker in Bontekoning, 2007). The next generation is born between 1955 and 1970 and is labeled as Generation X. Examples of characteristics that have been attributed to this generation are that they are considered conservative and modest and show a low tendency towards protesting (Becker in Bontekoning, 2007). After that, the so called Pragmatic Generation is distinguished with members being born between 1970 and 1985. Characteristics that have been ascribed to this generation are for example their individuality, hard working and having a high participation of female and ethnic minorities (Becker in Bontekoning, 2007). The youngest generation is called The Screenagers and consists of people who are born between 1985 and 2000. In the Netherlands this generation is considered to value authenticity, freedom and self development (Van Steensel in Bontekoning, 2007). Furthermore, they consider 'being happy' and 'learning' as most important in their lives (Boschma & Groen, 2007). More characteristics of this youngest generation are discussed later on. The Dutch classification is presented in Figure 3 as well.

Figure 3. Generational classifications in America and The Netherlands



Because this research is conducted in The Netherlands, the Dutch generational classification will be applied. This means the group of interest is members of the youngest generation who are born after 1985. As can be seen in the US classification in figure 3, this corresponds with a part of Generation Y. In exploring specific work preferences I will gather information on Screenagers as well as Generation Y.

<u>In conclusion</u>

I just described some existing classifications of generations and the relation with my target group. In the next part the main characteristics and work preferences of the target group are explored. By reviewing the literature the most important and distinctive preferences of young people are established. After determining these constructs, a theoretical description of the construct will be given.

2.4 GENERATIONAL PREFERENCES

Now that the picture of generational classifications is clearer, the specific characteristics of the target group have to be explored. There are clues that the young group of talent in which I'm interested have very different wishes and demands when it comes to work. To find out which aspects of the type of work and work environment are preferred and contribute to the attractiveness of an organization according to youngsters, this part will answer the question: <u>What are the specific work preferences of young talent?</u>

2.4.1 EXPLORING THE MOST IMPORTANT CONSTRUCTS

In order to get a clear overview of characteristics and work preferences of young job seekers, the empirical literature on the subject is reviewed. Next to empirical research, commercial marketing related literature is also taken into account.

In research for work preferences different approaches have been taken. Some have used work values to discover differences between certain generations (Bontekoning, 2008; Smola & Sutton, 2002) others used constructs based on psychological theories to explore work preferences of youngsters (Gilbert et al., 2008). These approaches use a more theoretical base to constitute a number of factors that ought to comprise work preferences. Other researches use the input of the target group as basis for their research. For example researches that use interviews or the repertory grid-method (Broadbridge, Maxwell, & Ogden, 2009; Eisner, 2005) to explore the features considered the most important by groups of young people. Combining the results of both types of research resulted in an extensive list of work preferences. This list was analyzed and seven underlying constructs were considered the most important by the target group. The seven constructs are listed below:

1. Challenging Work
2. Flexibility
3. Compensation system
4. Organizational Culture
5. Style of Management
6. Promotion opportunities
7. Opportunities for learning- and development

In the next section every aspect that is considered important by youngsters will be described in terms of specific preferences of the youngest generation. Subsequently theoretical based definitions of the construct are provided and compared. The perspective of youngsters is used to make sure that only factors that matter to this specific generation are discussed. For every factor the scale that will be used to measure the construct is described. This will result in a work preferences instrument that is customized to the youngest generation and which can be used to heighten the chance of a fit on type of work and work environment.

2.4.2 DEFINING THE CONSTRUCTS

1. Challenging work

Youngsters mention in many studies the need for challenging work. What they actually define as challenging work is less clear. In a research executed by Manpower (2006), this question was asked to members of the youngest generation. It was found that youngsters consider work challenging if there are short-termed projects with a clear goal. Furthermore they would like to see their impact on the result but don't constantly want to be stressed in the process of realizing this (Manpower, 2006).

In the current literature there hasn't been one clear way of defining challenge in the work context. Davies & Easterby-Smith (Davies & Easterby-Smith, 1984) for example define challenging job experiences as 'work activities for which existing tactics and routines are inadequate and that require new ways of dealing with work situations'. These new ways to deal with work situations require the development of a wide range of skills, abilities, insights, knowledge, and values (McCall, Lombardo, & Morrison, 1988). This focus on learning and developing as basic features of challenging work is also recognized by McCauley, Ruderman, Ohlott, & Morrow (1994). In their definition they state that challenging job experiences have: 'job characteristics that provide individuals with the opportunity and motivation to learn'. This learning-aspect is also reflected in the identification of challenging goals in Locke's Goal Theory (Locke & Latham, 2006). This theory states that a task is challenging when: (1) tasks are complex and heuristic so that automatic mechanisms do not work; (2) subjects have no prior experience or training on the task and thus have no knowledge of suitable task strategies; and (3) there is pressure to perform well in a short time period, so that there is little freedom or time to experiment with different ways of performing the task (Locke & Latham, 2006). It should be added however that the relation between job demands and job performance or satisfaction is not linear but rather works in an inverted-U shape. More demands will work motivating in a job until a certain level is reached where motivation will decrease again; a situation called 'over-challenge' (Dewettinck & Buyens, 2006). It seems apparent that because of the dislike of 'being stressed in the process' youngsters are quite wary for the situation of over-challenge.

In their Kaleidoscope Career Model, Mainiero & Sullivan (Mainiero & Sullivan, 2006) looked at aspects that constitute challenging work. In their research they found five main motives in the search for challenge in work. First of all, in accordance with previous research, the need for employees to develop and grow is also recognized as an important aspect of challenging work. Second, people seek to gain motivation through challenging work. This means people will consider work as challenging when they constantly get motivated by it. Third, challenge is described as a way to obtain validation. With this, the opportunities people have to show themselves and others what they've got. Fourth, challenge is seen as a way to have an impact. In this way, work will be considered challenging if there's the possibility to have an impact (on others) with your work. Fifth, challenge can be considered a way to establish expertise. In this approach work is rated more challenging when there is a chance to becoming an expert in a particular field of work.

These wide descriptions of motives for and dimensions of challenge are also represented by the number of ways challenge has been measured. The most basic way of measuring job challenge is asking to rate jobs on how challenging they are. Other multi-item measure of challenge in a work-context focus on learning opportunities (Hall & Las Heras, 2010), responsibility in individually determining work content and process (Huang, Lawler, & Lei, 2007), the extent to which a job is meaningful (Idsoe, 2006) and the room that's present for creativity and own ideas (Holmes & Srivastava, 2002).

In this study, I have chosen to use the challenge-measure of Amabile, Hill, Henessy & Tighe (1996). Contrary to other questionnaires, this instrument is already formulated in a work preference context and therefore suitable for this study. The measure is part of the Work Preference Inventory (Amabile et al., 1996) and has been extensively developed and tested resulting in the final scale which consists of 7 items. These items represent the learning and development focus which is related to challenge but also complexity and novelty of problems in a work context and the extent to which a person has to stretch his abilities. With an alpha of .74 and factor loadings ranging from .36 to .79 it have proved to be a reliable and valid instrument to measure preferences for challenge. An example of this scale is: '*I want my work to provide me with opportunities for increasing my knowledge and skills'.* A full list of the items is presented in table 4 (p. 32).

In order to also reflect the need for work with impact, I added a reworded version of the task significance scale from the WDQ (Morgeson & Humphrey, 2006). This scale is normally used as an evaluative instrument concerning task significance of part of work design. For this study though, I used the scale to measure preferences of workers and students with no work experience. The scale consisted of 4 items that measure the effect people want to have on other people's lives and the importance their work has to have in a broad sense. The scale has proven to be a reliable instrument to measure the construct ($\alpha = .86$). An example of an item of this scale is: '*I want a job that has a large impact on people outside the organization'*. A full list of the items is presented in table 5 (p. 33)

2. Flexibility

Youngsters constantly rate flexibility as one of the most important characteristics of work. They want to be able to (partly) determine when, where, how much and on what they work. They are used to change and uncertainty and therefore accustomed to the need for flexibility. The motive for this search for flexibility can be found in the self declared fact that they 'work to live' which emphasizes their need to spend time with friends and family (Manpower, 2006; Broadbridge et al. 2009).

Flexibility in a work-context can be defined and categorized in different ways. Some authors have made a distinction between flexibility related to the job and flexibility related to the environment. Job related flexibility, or so called functional flexibility, is mainly concerned with job content, job descriptions and job structure (Hunter et al. 1993). Work environment related flexibility is called numerical flexibility and features type of contract and number of hours worked. Within the work environment flexibility, three more types of flexibility can be structured (Kossek & Van Dyne, 2008): Time flexibility, which can be defined as flexibility in the number of hours worked. An example of this is part-time work. Timing flexibility, this is defined as flexibility in when work occurs. Examples of this type of flexibility are variation in begin and end times of work and compressed workweeks. Place flexibility can be described as flexibility in where work occurs. An example of this is telecommuting, where one works from a location different from the main organizational building (Kossek & Van Dyne, 2008). An encompassing construct for numerical flexibility as well as the three types of flexibility as distinguished by Kossek & Van Dyne (2008) is that of flexible work arrangements (FWA's) (Rau, 2003). Flexible work arrangements can be defined as: '*alternative work options that allow work to be accomplished outside of the traditional temporal and/or spatial boundaries of a standard workday'* (Rau, 2003). The original standard workday being monday to friday, 35-40 daytime hours (Tausig & Fenwick, 2001).

The last couple of years, flexibility in the work context received much interest. Formulated as 'the new way of work', flexible working options like a compressed work week or teleworking have become very popular. These options are often addressed in terms of benefits for employers. In this case however, FWA's are considered as benefits for employees since the arrangements provide them with a greater freedom in determining their place and hours of work.

As youngsters state they want to be able to determine when, where, how much and on what they work, both job αrelated flexibility and spatial and temporal flexibility will be measured. In order to measure job-flexibility, a scale develop by Trank et al. (2002) is used. In their study, Trank et al. (2002) used a group of students (sophomores, juniors and seniors) as respondents. The job-flexibility scale proved to be reliable (α = .70). The scale consists of 4 items and concerns the job description and structure. An example of an item of this scale is: *I want to work for a company where job descriptions are loose and fluid'.* A full list of the items is presented in table 13 (p. 39).

In order to measure the importance of spatial and temporal flexible work options, a scale of Swanberg & Simmons (2008) is used consisting of 6 items. Originally this scale was used as an evaluative instrument to measure access to spatial and temporal flexibility options. It has been used in a survey performed under a representative sample of the US labor force. For this research the same items could be used however the introductory question differed. Instead of asking whether there is access to a certain type of flexibility it was stated in a preference context. An example of this is: '*I want to work a compressed work week'* A full list of the items is presented in table 14 (p. 39).

3. Compensation system

Regarding compensation systems, youngsters seem to have a desire for constant feedback and instant gratification (Broadbridge et al., 2009). In practice this means they like to hear what they can improve and especially get appraisal for what they do well (Martin, 2005).

Rewards that are association with a compensation system can be subdivided into two types of rewards; monetary and non-monetary. Monetary rewards can be seen as factors that influence extrinsic motivation whereas non-monetary have to do with intrinsic motivation.

Monetary rewards are one of the most studied variables in relation to job choice. However, research also has shown that salary affects the job choice process according to Tversky's non-compensatory elimination-by-aspects theory (1972). This means that a certain minimum level has to be reached in order for a job offer to be taken into consideration in the first place. Research has shown that salary is an example of such a non-compensatory factor (Rynes, 1991). Besides the level of pay, companies can vary in their pay systems. For example pay can be based on individual performance, on merit, on seniority or team-based. Also a distinction can be made between pay incentives and fixed salary. As youngsters like to be appraised for what they do well, the base of pay might be important in the pay system. Especially pay based on individual performance might be attractive for this generation.

Non-monetary rewards consist of all incentives to do better that are not expressed in money. Most important in this category are rewards such as praise and recognition (Jansen, Merchant, & Van der Stede, 2009). In their study, they compare results from the same study conducted in the US with their own results. It is concluded that in Dutch companies non-monetary rewards are much more prevalent and especially recognition is emphasized by managers of Dutch organizations (Jansen et al., 2009). Since youngsters also seem to consider praise and recognition very important in work (Martin, 2005) this type of reward will also be taken into account. Also, the strong need for feedback seems important.

The non-monetary reward system was measured using the scale of Trank et al. (2002) that measures praise and recognition (α = .72) and consists of 4 items. An example item of this scale is: '*It is very important that my supervisors appreciate the work I do'.* A full list of the items is presented in table 6 (p. 33). The monetary reward system can be measured by scales of Trank et al. (2002) measuring pay preferences (α = .71) which consists of 7 items. An example of an item of this scale is: *'I want my pay to be determined strictly by my individual performance'.* A full list of the items is presented in table 7 (p. 34).

Preferences for feedback were measured by a modified version of the direct inquiry feedback seeking scale as used by Roberson, Deitch, Brief & Block (2003). In this study the internal consistency coefficient proved to be high (α = .81). An example of an item of this scale is: '*I directly ask my supervisor for information on my* achievements'. This scale was intended to measure the extent to which someone uses a direct feedback seeking strategy. The respondents however were American professionals in the utilities industries, which possibly could have led to a bias in the results. A full list of the items is presented in table 8 (p. 36).

4. Organizational culture

Youngsters are said to have high expectations of future employers. They want to work in a good working environment, within a positive company culture that also performs well in terms of social responsibility and sustainability (Broadbridge et al., 2009). Youngsters also greatly value the social aspects of a workplace wanting interaction with colleagues and possibilities to develop friendships with them. The finding that youngsters intensively use their networks consisting of family and social networking sites like Facebook and MySpace can be seen as an example for the importance of this social aspect.

In the literature organizational culture is by many authors regarded as of great importance for bringing about organizational change (Jung et al., 2009). Therefore the practical need to understand, manage and adjust organizational culture to meet organizational needs has arisen (Jung et al., 2009). Despite the fact that culture is a widely studied construct, a universal definition has not been conceptualized. In the literature over 100 dimensions have been associated with culture and moreover the number of existing definitions in the literature almost reaches 300. In an attempt to structure the vast amount of dimensions, Schein (Schein, 1990) divided the many dimensions into three levels of culture: artifacts, values and basic assumptions. The first level concerns the most visible and tangible aspects including the physical environment, products, technologies and the patterns of behavior. The second level is concerned with the values that underlie behavior incorporating moral and ethical codes, ideologies and philosophies. The third level also consists of beliefs but differs from values in that assumptions are internalized to the point that the beliefs are not conscious anymore.

The process of defining organizational culture becomes even harder when considering the notion that there is no such thing as one organizational culture but moreover an interwoven web of subcultures (Jaskyte & Dressler, 2004). These subcultures, especially present in organizations with separate subdivisions, might diverge or coincide with the general organizational culture possibly resulting in a counterculture (J. Martin & Siehl, 1983).

Some authors respond on this unclearness by stating that because culture is such an elaborate construct, scholars should use the definition most appropriate for their purpose and context.

The debate on how the full essence of organizational culture can be captured is also reflected by the number of existing measures. In a review of 70 measures for organizational culture Jung et al (Jung et al., 2009)(2009) conclude that there is no 'ideal' way to measure organizational culture. Instead, the instrument to measure culture should be chosen on terms of "fit for purpose". In their review of instruments measuring organizational culture, Jung et al. (2009) describe the dimensions that constitute culture and which instruments use this particular dimension.

In this study, I will use the dimensions of organizational culture that are stated as being the most important by the youngest generation. As youngsters find social responsibility and sustainability important cultural aspects a scale for social responsibility will be incorporated in the questionnaire. Additionally, as the social aspects of organizational culture are stressed by the youngest generation, a scale measuring these social aspects is also used. Finally, since TNO, where this research is conducted, is a highly innovative organization, an extra scale measuring innovation orientation is also added to the questionnaire.

To measure social responsibility, a subscale of a revision of O'Reilly's Organizational Culture Profile (1999) as performed by Sarros, Gray, Densten & Cooper (2005) was used. This 4-item scale, intends to measure social responsibility and has proven be a reliable subscale (α = .74). An example of an item of this scale is: *I want to work for an organization that has a clear guiding philosophy'.* A full list of the items is presented in table 16 (p. 40). To measure social support, a reworded version of the scale of the Work Design Questionnaire (Morgeson & Humphrey, 2006) was used. This scale proved to have a good internal consistency (α = .82). An example of an item of this scale is: *´In my work I want to have the opportunity to develop close friendships'*. A full list of the items is presented in table

11 (p. 37). To measure orientation towards innovation I used the scale as developed by Detert, Schroeder & Mauriel (2000). This dimension consists of 3 items and also has a sufficient reliability (α = .71). An example of an item of this scale is: '*employees are encouraged to make all kinds of proposals for change'.* A full list of the items is presented in table 15 (p. 40).

5. Style of management

Concerning supervisors, youngsters like to work with open and supportive bosses that appreciate them as human beings and give them regular feedback. They hate to be micromanaged and like an inclusive style of management (Broadbridge et al., 2009).

In the literature, two main styles of management/leadership can be recognized: Transactional and transformational leadership.

Transactional leadership is based on rewards and punishment to gain compliance from followers. It builds on a relationship between leader and follower based on business related transactions. When followers realize the expected results they will be rewarded. This style has got two distinctive dimensions. The first is contingent rewards, which means; rewards are only provided if a satisfactory level of performance is reached. The other dimension is management-by-exceptions, which means dealing with errors in an active manner (Bass & Avolio, 1995). The essence of transactional leadership is making clear what the goals and accompanying rewards are and control the progress towards these goals (De Hoogh, Den Hartog, & Koopman, 2004).

Transformational leadership can be defined as: 'a process that occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality' (Batista-Taran, Shuck, Gutierrez, & Baralt, 2009). Transformational leadership can also be divided into dimensions according to Bass and Avolio (1995). First of all, a transformational leader presents himself as an inspiring motivator who enthusiastically communicates his vision. Second, transformational leaders have individual interest in their followers, focusing on their development, and if necessary coach them. Third, a transformational leader challenges his followers intellectually by regularly asking followers for their opinion concerning business issues. By doing this he tries to get followers to critically evaluate daily business and organizational problems. Transformational leaders can be characterized as leaders who show behavior aimed to enhance employee's self-esteem and capacity in performing their job (De Hoogh et al., 2004).

As can be seen in the short description of preferences of the youngest generation for managers both leadership styles can be recognized. On the one hand, youngsters seem to value clear feedback of their supervisor and like to have clear goals and rewards for performance; all characteristics of a transactional leader. On the other hand, youngsters also want open, supportive managers who appreciate them as human beings; which are characteristics that belong more to a transformational leader. Since both styles seem to be appreciated to a certain extent, both leadership styles were measured in the questionnaire.

To measure transformational leadership (11 items) a scale from the CLIO is used (De Hoogh et al. 2004). This scale proved to have good internal consistency (α = .80) (Hoogh et al. 2004). An example of an item of this scale is: '*I want a leader that is capable of making others enthusiastic for his plans'.* A full list of the items is presented in table 8 (p. 36)

To measure transactional leadership, a scale is used from the Multifactor Leadership Questionnaire (MLQ) as developed by Bass & Avolio (1995). This scale consists of 2 subscales representing the two dimensions. Both dimensions comprise 4 items. Research has found internal consistency estimates (coefficient alpha) for the transactional subscales ranging from .69 to .90 (Tejeda, Scandura, & Pillai, 2001). An example of an item of the subscale contingent reward is: *´I want a leader who makes clear what one can expect to receive when performance goals are achieved'.* For the subscale management-by-exception an example of an item is: '*I want a leader who directs my attention toward failures to meet standards'.* A full list of the items is presented in table 10 (p. 37)

6. *Promotion opportunities*

Youngsters are said to be quite ambitious. This is expressed by their interest in the promotion opportunities a company provides (Yeaton, 2008). This is particularly the case for the group of youngsters with high social- and academic achievement as they have a stronger preference for clear and fast-track promotion tracks than their lower performing colleagues (Trank et al., 2002). Furthermore, youngsters feel they deserve a higher entry level than non-graduates and because of a strong feeling of entitlement they also feel they deserve a promotion without having to earn it by working hard for several years (Twenge et al., 2010).

In attracting the best and brightest students, organizations should take into account their specific preferences. When it comes to promotion opportunities, it seems that students with highest achievement have a preference for the presence of fast-track promotion tracks. Therefore, scales for fast-tracks and promotion opportunities are used in the study.

To measure this construct, a scale from Trank et al. (2002) was used that measures Promotion opportunities (7 items). An example of an item of this scale is*: 'I want a job where there are lots of opportunities for upward mobility'.* In their research a shorter 4-item version of this scale was used that proved to be reliable (α = .75). The extra 3 items that were in the original scale as developed by Trank et al. (2002) however might add qualitative information to the variable and are on these grounds added to the scale. These three additional items concern alternatives for linear promotions such as lateral promotion, training and job rotation, which occur more often in organizations with a flattened structure. These alternatives for linear promotion might be attractive options for the youngest generation as organizations nowadays often move to more flat structures. A full list of the items is presented in table 18 (p. 38). Also the presence of 'fast-tracks' are taken into account using another subscale of Trank et al. (2000) consisting of 6 items. An example of this scale is*: 'I'd rather work for a company where it isn't clear whether you're on a fast track or not'.* Of this scale a shorter version (4 items) proved to be reliable (α = .67) however, to gather some additional information, I chose to also use two items concerning fast-tracks from a job-seeker perspective and an aspect of justice. A full list of the items is presented in table 17 (p. 40).

7. Opportunities for learning and development

Other things youngsters really seem to value in future work is the amount of opportunities it provides to grow personally as well as professionally. Personally they like to meet their own goals, take responsibility for their own career and become a better person. Professionally they like to be offered continuous learning and development opportunities.

In an attempt to measure learning and development strategies and goals, Tones & Pillay (2008) developed the learning and development questionnaire. Based on theories on goal selection, goal engagement and goal disengagement items were developed from both an individual as well as an organizational perspective. Factor analyses showed there were 6 underlying factors: Organizational opportunities; learning climate, constraints, work tasks, and individual strategies; goal selection, goal engagement and goal disengagement. However, in this research I'm only interested in the opportunities for learning and development.

To measure this construct I used one of the subscales of the learning- and development survey (Tones & Pillay, 2008). Although this questionnaire was partly developed for a group of older workers, contrary to other subscales, the subscale organizational opportunities only concerns items that are not age specific. The subscale of organizational opportunities – learning climate consists of 4 items. An example of an item of this scale is: *'My workplace is willing to change learning and development activities to suit my needs'.* The scale proved to be reliable in previous research (α = .88). A full list of the items is presented in table 18 (p. 41).

FOCUS

In the part above I gathered the most important work preferences of the youngest generations from both American as Dutch classifications because the target group is part of both generations. Instead of using the year of birth 1981 as border for my target group, I will use the generational classification as starting point. Since the research takes place in the Netherlands, I will focus on the Dutch generational classification and therefore will distinguish between the four generations in the Netherlands (figure 3, p. 19). The reason for this is that in this classification the target group belongs to both the Pragmatic generation as to the Screenagers. Assuming generational theories, combining both groups will not give a clear picture of work preferences. Therefore only the youngest generation is the main group of interest.

<u>In conclusion:</u>
In the part above I have described the main preferences that the target group are ascribed to have. This resulted in seven aspects which were all specified into more concrete aspects. In the next part the research model and the main research question are established.

2.5 RESEARCH MODEL AND QUESTION

2.5.1 RESEARCH QUESTION

Besides the objective of this research to check whether the used questionnaire is valid and reliable, I'm interested in what makes work attractive for the youngest group. The claim that this generation differs significantly from previous generations is questioned using a more specific target group. Therefore, the main research question as formulated in the introduction can be specified as follows:

> *Do the work preferences for the type of work and work environment of technical youngsters differ significantly from that of older technical generations, and if so, on which aspects?*

All of the above, results in the research model (figure 4). For the target group, the type of work and work environment can be described by seven constructs. These constructs can in turn be described by one or several scales. These scales will give an insight in the preferences of the youngest (Screenagers) and that of the older generations.

Figure 4. The research model

Constructs / Scales

Type of work & Work environment	
Challenge	Challenge
	Task significance
Flexibility	Job Flexibility
	Spatial and temporal flexibility
Compensation system	Praise and recognition
	Pay preferences
	Feedback seeking behavior
Management style	Transformational leadership
	Transactional leadership
Organizational culture	Social support
	Innovation orientation
	Social responsibility
Promotion opportunities	Promotion opportunities
	Fast-tracks
Learning- and development opportunities	Learning and development

Outcomes

Preferences of technical members of youngest generation

Preferences of technical members of older generations

In conclusion

This far, the theoretical concepts involved are explored which led to the research model and main research question. In the next part the methodology of the research is further described.

3. METHODOLOGY

In this chapter the methodological aspects of the research are discussed. First the samples are described, after that the reliability of the scales is discussed and finally the statistical methods that are to be used are described.

3.1 SAMPLES

There were two samples of respondents used in this study. On the one hand there was a group of technical students, on the other hand a group of people working in a Dutch technical research company. The student sample was used to find out the specific work preferences of future job-seekers. The worker sample was used to get respondents with similar backgrounds but also representing older generations in order to be able to compare between generations. By making a comparison, the characteristic work preferences of the youngest generation can be explored. Also, the use of a student sample as well as a worker sample makes it possible to test the potential effects of work experience.

3.1.1 STUDENT SAMPLE

For the group of students, courses of the masters Applied Physics and Mechanical Engineering were visited where students were asked to fill in the questionnaire. All of the respondents were in their final year(s) of their study. Of the in total 69 respondents, 68 were male and only 1 was female (table 1). Year of birth ranged from 1982 to 1989 with one outlier of 1972 and an average of 1986. The respondents studied at three different universities across the Netherlands which are the three technical universities in the country. Of the total number of respondents, 29 were students at the University of Twente, 21 were studying at the University of Delft and 19 were enrolled at the University of Eindhoven.

3.1.2 WORKER SAMPLE

For the worker sample a different strategy was used. Since this research was performed as an internship at TNO, I could easily use a web-based questionnaire to acquire respondents. This web-based questionnaire was sent to a total number of 816 employees. Most of these employees have an academic background whereas others have favored other types of higher education. After sending a reminder after one week 273 people had filled in the questionnaire meaning a response rate of 33%. After analyzing the responses it appeared that some questionnaire were only partially finished where others seemed to be just opened and closed again without filling it in. After removing these incomplete responses, a number of 194 respondents remained, resulting in a response rate of 24%. Of the total sample, 18% was female and 82% was male (table 1) and 40% had children whereas 60% did not. The age of participants ranged from approximately 20 years to 70 years. In exploring the generational diversity of the sample the Dutch classification was used. It showed that 15% belonged to the Screenagers, 47% to the Pragmatic Generation, 27% to Generation X and the other 11% were Babyboomers. To check how the sample relates to the full population, a comparison was made with an overview of all employees at TNO. In the full TNO population only 5% is member of the Screenagers, 46% of the Pragmatic generation, 35% of Generation X and 14% of the Babyboomers.

With only a few percentage points variation it can be concluded that the sample is quite representative. Only the Screenagers generation seem to be overrepresented with 15%. A possible explanation for this might be that the research was formulated in terms of the youngest generation. Although I stressed the importance that respondents from every age were needed in order to make a comparison between generations, I still received reactions of older employees who were not sure whether they were expected to fill in the questionnaire. As they perceived it, they thought only the youngest generation needed to participate. This might have caused a lower response rate for the older generations and subsequently resulted in the overrepresentation of the Screenagers.

3.1.3 TOTAL SAMPLE

In the total sample, 26% were students whereas 74% were workers. Of these respondents, 86% were male and 14% female. The younger generations were better represented as 34% was part of the Screenagers, 38% of the Pragmatic Generation and only 20% was Generation X and 8% Babyboomers. The demographics for the total sample are described in Table 1.

Table 1. Demographics of the student sample (n = 69)

Demographic variable	Student sample	Worker sample	Total sample
Number of respondents	89 (26%)	174 (74%)	263
Gender			
Male	99 %	82 %	86%
Female	1 %	18%	14%
Generation Dutch classification			
1. Screenagers	87 %	15 %	34 %
2. Pragmatic Generation	13 %	47 %	38 %
3. Generation X	0 %	27 %	20 %
4. Babyboomers	0 %	11 %	8 %

3.2 INSTRUMENTATION

3.2.1 RELIABILITY OF THE SCALES

All the scales were measured using a five point Likert-scale with of score of ‘1’ corresponding with totally disagree and the score ‘5’ with totally agree. This also means that a score of 3 actually means ‘does not agree nor disagree’. In table 2 the reliability of every scale is presented. As can be noticed in the table, some scales have a Crohnbachs’ alpha below the generally excepted level of .70 as suggested by Nunally (in Devellis, 2003) (table 2). This lower bound of alpha is not the only ‘right’ one as researches vary in the acceptable levels of alpha. The acceptability for one depends on the prospective use of the instrument; for example instruments meant for medical use demanding a high lower bound (DeVellis, 2003). In this study, I will adopt the scheme as used by Devellis in which alpha’s below .60 are unacceptable, between .60 and .65 undesirable, between .65 and .70 minimally acceptable, between .70 and .80 respectable, between .80 and .90 very good and much above .90 as a sign to look at possibilities to reduce scale length (Devellis, 2003 p. 95). Normally an alpha below the lower bound would lead to the discard of items in order to improve the reliability. However, I will first look at the factor analysis to see which items of the scales are used to conceptualize the constructs before removing any items.

Table 2. Reliability of the scales

Scale	Reliability (α)
Challenge	.76
Task significance	.84
Job Flexibility	.71
Spatial and temporal flexibility	.68
Praise and recognition	.42
Pay preferences	.62
Feedback seeking behavior	.78
Transformational leadership	.88
Transactional leadership	.65
Social support	.81
Innovation orientation	.84
Social responsibility	.72
Promotion opportunities	.81
Fast-tracks	.69
Learning and development	.69

3.2.2 FACTOR STRUCTURE OF THE SCALES

To assess the underlying factor structure of the constructs a factor analysis is conducted. There has been much debate whether to use Exploratory Factor Analysis (EFA) or Confirmatory Factor Analysis (CFA) with supporters for both sides (Hurley et al. 1997). CFA is generally seen as requiring a strong underlying theory in order to analyze data and decide on accepting or rejecting hypotheses about a population factor structure based on sample data. EFA on the other hand, can be used in more situations as a clear theoretical model does not yet have to be specified. However, theory-based research will be more compelling in many ways than is purely exploratory research. In a debate with a panel of experts led by Hurley & Scandura (1997) the general conclusion is that it is not necessarily choosing the one over the other. Rather, it is the purpose of the study that determines which approach is the most suitable. Another option is to use both EFA and CFA as complementary approaches, as described by Vandenberg (p.676 in Hurley et al., 1996). This approach starts with conducting a CFA to check for differences between samples. The consecutive EFA is then used to see where exactly these differences, if any, come from. In this study I chose to use this approach.

In the first step, a CFA is conducted to answer the question; *is the factor structure for the constructs the same for both the youngest generation as the older generations?* If it turns out that there are differences in factor structure, this means that the samples have different interpretations of the construct. There are several goodness-of-fit indices that can be used to evaluate the proposed model. I chose to use two indicators: the ratio between chi-square and the degrees of freedom ($\chi 2$/df-ratio) and the root-mean-square error of approximation (RMSEA). Rationale for the choice of these indicators is given later on. The model used in this CFA tests whether there are differences between the two samples. A good fit of the model leads to the conclusion that there are no differences between youngsters and non-youngsters on the relevant construct. A bad fit on the other hand suggests that there are differences in factor structure between the samples.

The $\chi 2$/df-ratio is also referred to as a badness-of-fit measure in the sense that large values correspond to a bad fit and small values to good fit (Jöreskog & Sörbom, 1989). To determine what values are 'low', different lower bounds have been used with lower values indicating good fit. In the construction of the WDQ for example, Morgeson & Humphrey (2006) followed Arbuckle as they used a ratio of 2.0 to indicate a good fit. However, as Mueller (1996) notes, other researchers have used values of 3 or 4 as indicators of good fit. Because I'm looking for differences in factor structure I will use the relatively high value of 4 which means that relatively high values are required in order to conclude that there is a difference in factor structure. This high value is chosen to exclude the possibility of capitalizing on chance.

The RMSEA tries to answer the following question: *how well would the model, with unknown but optimally chosen parameters, fit the population covariance matrix if it were available?* The general scheme used to evaluate values is as follows: values below .05 indicate a good fit, values between .05 and .08 indicate a reasonable fit, values between .08 and .10 a mediocre fit and values of ≥.10 a poor fit. Once again, as I'm consciously looking for differences, my interest lies in constructs that show a poor fit. Therefore I will use the relatively high lower bound of .10 in order to be sure that the conclusions are made.

The next step in exploring differences in kinds of preferences is an EFA. The results from the CFA only show that there are differences in the factor structure of the construct between the two samples. The EFA can give insight in where exactly these differences occur; is it caused by one specific item that did not load on the construct or are there several items in a scale that show different patterns. After reviewing item content, this analysis will result in insight in the core aspects of certain constructs and differences between samples on these core aspects. There are several options in method of extraction and rotation in performing an EFA. As extraction method I used the maximum likelihood approach as Fabrigar, Wegener, MacCallum and Strahan (1999) argue that if data are relatively normally distributed, maximum likelihood is the best choice. This is because "*it allows for the computation of a wide range of indexes of the goodness of fit of the model [and] permits statistical significance testing of factor loadings and correlations among factors and the computation of confidence intervals*." (p. 277) (as cited in Costello & Osborne, 2005). The rotation method used, is the orthogonal method of varimax. In order to be able to correctly interpret the results of the EFA, there are a few conditions the sample has to meet. The average communalities, the Kaiser-Meyer-Olkin measure and Bartlett's test of sphericity all have to have certain values. These conditions are checked before conducting the EFA.

<u>In conclusion</u>

In this chapter, the procedure of the research and the respondent samples are described. Also, the reliability of the scales is given. In the next part the results of the analyses will be presented.

4. RESULTS

In this chapter, the results of the factor analyses are discussed. Subsequently the results of the reliability analysis on the reduced scales are discussed. Eventually, the results of the t test are presented to compare levels of preferences of several samples.

The results of the analysis can be distinguished into two types. On the hand the types of results that help answer the question whether there are differences between youngsters and non-youngsters. These results will give insight in differences in kinds of preferences. On the other hand there are the types of results that point out whether youngsters really do value the used constructs more than non-youngsters, as suggested in the literature. These results will give insight in differences in level of preferences.

4.1 FACTOR ANALYSIS

4.1.1 CONFIRMATORY FACTOR ANALYSIS

There were some scales that showed to have difference in factor structure and others that did not. Results are presented in table 3. As can be seen there are nine scales that exceed the .10 threshold for the RMSEA. Job flexibility, flexibility, innovation orientation, social responsibility, fast-tracks and learning and development all had values of RMSEA below .10. Thus these scales did not reveal significant differences in factor structure and consequently do not differ in use of core aspects of the construct. The nine scales that do show differences are the constructs where the youngest generation and older generations have different ways of operationalizing the construct (marked in red in table 3). In other words, youngsters seem to use different definitions for some work-related constructs than older generations do.

So it can be concluded that the youngest generation and older generations do differ in kinds of preferences they have. Where these differences exactly occur and how they are expressed is shown in results of the EFA below.

Table 3. Indicators for all scales stemming from the CFA (scales marked in red showed differences)

Scales	Degrees of freedom	Chi-square ($\chi 2$)	$\chi 2$/df-ratio	RMSEA
Challenge	42	103.36	2.46	.10
Task significance	12	58.59	4.88	.16
Job flexibility	12	5.53	0.46	.00
Flexibility	30	72.11	2.40	.09
Praise & recognition	12	48.89	4.07	.14
Pay preferences	42	432.97	10.31	.25
Feedback	12	63.96	5.33	.17
Transformational leadership	110	275.33	2.50	.10
Transactional leadership	56	221.24	3.95	.16
Social support	30	143.73	4.79	.17
Innovation orientation	6	4.33	0.72	.00
Social responsibility	12	12.84	1.07	.03
Promotion opportunities	42	164.97	3.93	.17
Fast-tracks	30	59.64	1.99	.09
Learning- and development	12	15.42	1.29	.06

4.1.2 EXPLORATORY FACTOR ANALYSIS

Average communalities ranged from .19 to .58 and did not reach the minimum level of .6 which is the rule of thumb with a sample greater than 250 (Field, 2009). For all the scales the Kaiser-Meyer-Olkin measure was performed to verify the sampling adequacy for the analysis. Additionally, Bartlett's test of spericity was conducted to check whether correlations between items were sufficiently large for factor analysis. It can be concluded that every scale has adequate sampling and sufficiently large between-item correlations, but the low communalities make that results have to be interpreted with caution.

In the next part, the results of the EFA are discussed for every scale. All constructs are accompanied by a table with the factor loadings of the items for five samples; total, Screenagers, non-Screenagers, students and workers. As the youngest generation is the group of interest, the items with sufficient factor loadings in the Screenager sample are the ones that were kept for further analysis. Items that were not used are marked red in the tables.

Challenge

When looking at the factor loadings of the items in the different samples one can see that there are differences between the samples (table 4). In all the samples there are two factors with eigenvalues greater than 1. It is clear that items 6 and 7 load on a different factor than the other items as it is the case for almost every sample. An explanation for this could be the fact that these are the only two negatively worded items which could have led to misunderstanding by respondents and consequently a poor performance (DeVellis, 2003). Another result is the fact that for both the non-Screenager and worker sample items 1 to 5 load on the first factor whereas for the Screenager and student sample the first item does not load on this factor. So it appears that, in contrary to older generations, for the youngest generation, 'challenge' in the work context does not involve 'opportunities to tackle problems that are completely new for someone'. An explanation for this could be that as youngsters only just started working, it is inevitable that most problems will be new. Older people on the other hand, probably have regularly encountered the same problems, so if a problem is completely new for them this will be more likely to be considered challenging. In summary, aspects that are considered challenging work by the youngest generation are: '*solving complicated problems, the notion that the more complex the problem the more fun, work that offers opportunities to develop knowledge skills* and *curiosity as a driving force*'. In the process of developing a questionnaire for the work preferences of young people I will use the conceptualization of the Screenager sample to explore the data further. For the challenge scales this means I will use items 2, 3, 4 and 5.

Table 4. Factor loadings for the challenge-scale

	Total sample		Screenagers		Non-Screenagers		Students		Workers	
Challenge	1	2	1	2	1	2	1	2	1	2
Ik wil werk dat de mogelijkheid biedt om problemen aan te pakken die helemaal nieuw voor me zijn	,523				,616				,577	
In mijn werk wil ik ingewikkelde problemen oplossen	,760		,693	,485	,761		,832	,437	,743	
Hoe moeilijker een probleem, hoe leuker ik het vind om het op te lossen	,606		,486		,638		,485		,621	
Ik wil werk dat mij kansen biedt om mijn kennis en vaardigheden te vergroten	,474		,415		,504				,508	
Nieuwsgierigheid is de drijvende kracht achter veel van wat ik doe	,555		,440		,603		,439		,602	
Ik heb liever werk waarvan ik weet dat ik het kan dan, dan werk waarbij het uiterste van mijn vaardigheden wordt gevraagd (R)		,996		,999		,994		,998		,995
Ik wil werk met vrij eenvoudige, eenduidige taken (R)		,421		,447				,447		,410

Task significance

Although there were significant differences in the factor structure between generations, all samples extracted one factor. The differences can therefore be found in the factor loadings of the items. In the Screenager sample, items 3 and 4 both have loadings greater than .9, item 1 a reasonable loading of .68 and item 2 just barely reaches the limit of .4 (table 5). In the student sample the same tendency can be noticed, with item 2 loading below .40. When looking at item content, this could be explained by the fact that item 2 deviates from the other three. Where items 1, 3 and 4 are concerned with the influence or effect one's work has on a specific entity, 'lifes of other people' or 'people outside the organization', item 2 is formulated much more general as it concerns 'importance in a broad sense'. So when it comes to the significance of a task, youngsters seem to interpret this as concerning the influence on other people rather than in a general sense. In the non-Screenager sample the loadings have less variance with a loading of .86 being the highest and .65 the lowest. In this sample, item 2 even has a higher factor loading than item 1. This is the same for the worker sample. So in contrary to youngsters, non-youngsters and workers do not seem to distinguish between 'influence/effect on others' and 'meaningfulness in a broad sense' when it comes to task significance. Nevertheless, as all items still have a sufficient loading I will continue to use all four items in further analysis.

Table 5. Factor loadings for the task significance-scale

	Total sample	Screenagers	Non-Screenagers	Students	Workers
Task significance	1	1	1	1	1
Ik wil dat de resultaten van mijn werk een merkbare invloed hebben op de levens van andere mensen	,648	,684	,649	,658	,676
Ik wil dat mijn werk betekenisvol en belangrijk is in brede zin		,425	,683		,678
Ik wil een baan die grote invloed heeft op mensen buiten de organisatie	,820	,921	,778	,964	,776
Ik wil dat het werk dat ik doe een behoorlijk effect heeft op mensen buiten de organisatie	,892	,907	,864	,878	,866

Praise and recognition

In this scale two out of four items were negatively formulated. This seems to have severe effects on the interpretability of the scale. In every sample two factors with eigenvalues greater than 1 are extracted. Also, all the samples show that the negative items (Praise 2 and 3) load on one factor and the positive items (Praise 1 and 4) on the other factor (table 6). The content of both positive as negative formulated items suggests that these items actually are measuring a different construct. The positive items concern 'the appreciation a supervisor has' and 'the fact that praise and recognition motivates to do better'. The two negative items on the other hand are actually more concerned with 'pay as substitute for praise' or 'compliments instead of paying what people deserve'. Although there are small differences in factor loadings, the essence of two separate factors is the same for all samples. Because the construct was designed to measure praise and recognition, I will use items 1 and 4 in further analysis.

Table 6. Factor loadings for the praise and recognition-scale

	Total sample		Screenagers		Non-Screenagers		Students		Workers	
Praise and recognition	1	2	1	2	1	2	1	2	1	2
Het is erg belangrijk dat mijn leidinggevenden het werk dat ik doe waarderen	,826		,830		,825			,820	,827	
Ik krijg liever geld dan lof voor het verrichten van goed werk		,828		,829		,827	,747			,832
Managers gebruiken te vaak complimenten in plaats van te betalen voor wat mensen echt waard zijn		,837		,813		,842	,810			,851
Wanneer mijn prestaties erkend en geprezen worden, wil ik het alleen maar beter doen	,835		,816		,839			,786	,845	

Pay preferences

The factor analyses performed all showed a significant difference between the three reverse coded items (items 5-7) and the first four items (table 7). When looking closer at item content, one could conclude that the first four items actually are concerned with individual pay because in all four items pay based on individual accomplishments is central. The last three items on the other hand, concern more group-based pay as they state that 'pay should be based on the companies' achievement, cooperation and team achievements'. As for the difference between the samples, the same two-factor structure is extracted with only differences in factor loadings.

Also remarkable here is that students, contrary to workers, seem to distinguish between the first two items and item 3 and 4 in the conceptualization of individual pay. All four items are concerned with pay for individual performance, however the content of item 3 and 4 both suggest that a comparison is made with other people; 'equal pay for everyone' and 'I usually work a lot harder than other people'. The fact that students, who have no work experience, score higher on these two items that make a comparison could suggests that they feel confident they can outperform others. The results from the other samples suggest that this 'confidence' decreases in the course of gaining more work experience.
As my interest mainly lies in youngsters, I will use all four items that are found to be loading on the first factor as a scale measuring individual pay. The three items loading on the second factor in the Screenagers sample are also kept for the analysis and measure group-based pay.

Table 7. Factor loadings for the pay preferences-scale

	Total sample		Screenagers		Non-Screenagers		Students		Workers	
Pay preferences	1	2	1	2	1	2	1	2	1	2
Ik wil werk waarbij mijn salaris alleen bepaald wordt door mijn individuele prestatie	,764		,806		,739		,823		,742	
Ik wil voor een bedrijf werken waar salaris gebaseerd is op individuele prestaties, omdat ik op die manier meer geld zal verdienen	,891		,942		,881		,841		,927	
Ik heb veel liever prestatiebeloning dan beloning op basis van leeftijd of gelijke beloning voor iedereen	,521		,433		,555				,536	
Ik wil dat mijn salaris gebaseerd is op mijn individuele prestatie omdat ik gewoonlijk een stuk harder werk dan anderen	,597		,486		,646				,657	
Ik denk dat het een goed idee is om minstens een deel van het salaris te baseren op hoe het bedrijf als geheel presteert		,542		,468		,580		,491		,574
Ik vind het niet erg als een deel van mijn salaris gebaseerd is op teamwork en samenwerking		,911		,917		,919		,897		,921
Ik vind het niet erg als een deel van mijn salaris gebaseerd is op de prestaties van mijn team		,882		,844		,884		,892		,863

Feedback

On the scale measuring feedback seeking behavior, a one-factor solution was extracted in all samples (table 8). What can be seen here is that there are only small differences between samples in factor loadings. What all the samples do have in common is that the first two items have higher factor loadings than the third and fourth item. Reviewing content shows that item 3 and 4 are concerned with feedback from colleagues. In the student sample these differences are the smallest, suggesting that students consider information from colleagues more as a source of feedback than the other samples do. Nevertheless, I will continue to use all four items in further analysis.

Table 8. Factor loadings for the feedback seeking behavior-scale

	Total sample	Screenagers	Non-Screenagers	Students	Workers
Feedback seeking behavior	1	1	1	1	1
vraag ik rechtstreeks aan mijn leidinggevende naar informatie over mijn prestaties	,910	,894	,915	,846	,914
vraag ik rechtstreeks aan mijn leidinggevende om een informele beoordeling van mijn werk	,872	,827	,891	,747	,911
zoek ik naar informatie van mijn collega's over mijn prestaties	,436	,430	,447	,563	,417
vraag ik aan mijn collega's om feedback terwijl ik bezig ben	,452	,444	,456	,508	,450

Transformational leadership

The transformational leadership scale seemed to have a simple one factor structure following from the factor analysis on the total sample. However, when distinguishing between generations and work experience remarkable differences were found. While some samples had only one factor, others found a three-factor structure (table 9). According to the structure that is extracted in the Screenager-sample, seven of the eleven items load on the factor that measures transformational leadership. In other words, these seven aspects are the key terms in which transformational leadership can be described according to the youngest generation.

There is one item that seems to be distinctive for the youngest generation. This is the item that states that a leader should have '*vision and a clear picture of the future'*. So according to youngsters a leader should have and convey clear thoughts on which direction to go in the future. The items that are not included in the definition for the youngest generation but are for the older generations, concern the following characteristics of leaders: '*stimulating employees to think about problems in a new way, encourages employees to think independently and delegates challenging responsibilities to employees'*. These three items can be characterized by behavior that is aimed at empowering employees and facilitating in the process of employee influence. Apparently, the youngest generation does not consider these behavioral patterns as distinctive for a transformational leader. Further, the student sample on its turn has its own pattern of items loading on the first factor. Characteristic of the items used in their operationalization is that they are all concerned with active involvement and empowerment of employees. The worker sample eventually seems to use the broadest way of defining transformational leadership. Their experience in work and consequently with several leaders could explain the wide arrange of behavior a transformational leader could (and should) display. In the analysis I will use the items that are extracted on the first factor by the Screenagers sample. This means I will discard items 2, 4, 5 and 11 and carry on with items 1, 3, and 6-10.

Table 9. Factor loadings for the transformational leadership-scale

	Total sample	Screenagers			Non-Screenagers		Students			Workers
Transformational leadership	1	1	2	3	1	2	1	2	3	1
praat met medewerkers over wat voor hen belangrijk is	,646	,632			,555		,523			,689
medewerkers stimuleert om op nieuwe manieren over problemen na te denken	,651				,548	,472				,711
visie en een beeld van de toekomst heeft	,653	,561				,738	,424	,445		,623
altijd op zoek is naar nieuwe mogelijkheden voor de organisatie	,636		,942			,759			,958	,642
medewerkers aanmoedigt om onafhankelijk te denken	,552			,967	,518				,539	,626
in staat is anderen enthousiast te maken voor zijn/haar plannen	,740	,706			,644	,410	,617			,757
medewerkers betrekt bij besluiten die van belang zijn voor hun werk	,701	,593			,709		,528			,700
medewerkers stimuleert hun talenten zo goed mogelijk te ontwikkelen	,647	,595			,705		,600			,681
medewerkers het gevoel geeft aan een belangrijke, gemeenschappelijke missie/opdracht te werken	,632	,515			,464	,459		,557		,633
laat zien overtuigd te zijn van zijn/haar idealen, opvattingen en waarden	,682	,611			,452	,535		,958		,662
uitdagende verantwoordelijkheden delegeert aan medewerkers	,552				,565					,616

Transactional leadership

The total scale consists of two subscales; rewards and management-by-exception. As can be seen in table 10, in the Screenagers sample this two-factor structure is extracted with only the last item of the scale having a factor loading below .40 (table 10). In the other samples, three-factor solutions were extracted with only the last item loading on the third factor. Factor loadings of the items on the first two factors however do not vary much between the samples. The conclusion following from this factor analysis is that I will continue to use both subscales. Only the fourth item of the Management- by-exception scale will be omitted in further analysis.

Table 10. Factor loadings for the transactional leadership-scale

	Total sample			Screenagers		Non-Screenagers			Students			Workers		
Transactional leadership	1	2	3	1	2	1	2	3	1	*2*	*3*	*1*	*2*	*3*
mij helpt in ruil voor mijn inzet		,453			,491		,443			,613	-		,428	
precies duidelijk maakt wie verantwoordelijk is voor het bereiken van prestaties		,706			,713		,693			,797			,686	
duidelijk maakt wat ik krijg als prestatiedoelen zijn bereikt		,703			,653		,713			,579			,727	
zijn tevredenheid uit als ik voldoe aan de verwachtingen		,467			,502		,457			,464			,427	
zijn aandacht vooral richt op fouten, uitzonderingen en afwijkingen van normen	,806			,836		,775			,430		,650	,814		
zijn volledige aandacht richt op het omgaan met fouten, klachten en mislukkingen	,585			,596		,516			,993			,556		
alle fouten bijhoudt	,681			,687		,652			,424		,569	,641		
mij erop wijst als ik de norm niet haal			,988					,990						,986

Social support

The differences between samples on the social support scale were striking. Where in most samples a two-factor structure was extracted, the Screenager and student sample derived only one factor. Remarkable is the fact that all the samples with the two-factor structure seem to have the same combinations of items loading on the first and second factor (table 11). The content of the items might explain this. Items 1, 2 and 3 are formulated as social happenings through the work or job a person does: '*I want to have the opportunity to develop close friendships in my job, I want to have the chance in my job to get to know other people and I want to have the opportunity to meet with others in my work'*. Items 4, 5 and 6 on the other hand, are formulated in a more general way: '*My supervisor is concerned about the welfare of the people that work for him/her, people I work with take a personal interest in me and people I work with are friendly.* This can be interpreted by saying that the youngest generation and students do not discriminate between social opportunities through work and through interactions with others. Rather they see social support as an all encompassing construct. In the further analysis the original six item scale will be used.

Table 11. Factor loadings for the social support-scale

	Total sample		Screenagers	Non-Screenagers		Students	Workers	
Social support	1	2	1	1	2	1	1	2
Ik wil dat het mogelijk is om hechte vriendschappen te ontwikkelen door mijn werk	,477	,446	,767	,481		,778	,447	,446
Ik wil door mijn werk de kans hebben om andere mensen te leren kennen	,885		,860	,829		,891	,838	
Ik wil dat het mogelijk is om anderen te ontmoeten door mijn werk	,824		,791	,916		,742	,922	
Ik wil een leidinggevende die betrokken is bij het welzijn van de mensen die voor hem werken		,570	,530		,589	,602		,530
Ik wil ergens werken waar mensen persoonlijke interesse in mij hebben		,664	,726		,588	,741		,667
Ik wil werken met vriendelijke mensen		,605	,606		,586	,556		,614

Promotion opportunities

In the scale for promotion opportunities two factors were extracted in each sample. In the non-youngsters and the worker sample, items 3 and 4 were the only items that loaded on the second factor (table 12). This can be explained by the content of these two items which is formulated specifically for students: '*I will be disappointed if I haven't had a promotion within one year of leaving college'* and '*I will be disappointed if I haven't had a promotion within two year of leaving college'.* Since many of the respondents in the other samples probably have left college more than two years ago, this kind of formulation is not suitable. In the youngsters- and student sample a more complex solution was extracted. In both cases they have four items loading on the second factor. Together with item 3 and 4 these items can be characterized by 'fast promotions' and 'tendency to leave in absence of promotions'. On the first factor that is extracted in the Screenager sample, 5 items seem to load sufficiently. However, item 6 and 7 has cross-loadings on the second factor. The three remaining items (1, 2 and 5) can be characterized by the number and type of promotions that are present within an organization. These three items will be the ones I will use in further analysis meaning that items 3, 4, 6 and 7 will be discarded.

Table 12. Factor loadings for the promotion opportunities-scale

	Total sample		Screenagers		Non-Screenagers		Students		Workers	
Promotion opportunities	1	2	1	2	1	2	1	2	1	2
Ik wil een baan waar veel mogelijkheden zijn voor opwaartse mobiliteit	,486		,482		,486				,507	
Ik wil niet werken in een platte organisatie waar de meeste carrière-stappen zijwaarts zijn in plaats van opwaarts	,419		,452		,419		,549		,449	
Ik ben teleurgesteld als ik geen promotie maak binnen een jaar nadat ik afgestudeerd ben		,978		,994		,978		,778		,978
Ik ben teleurgesteld als ik geen promotie maak binnen twee jaar nadat ik afgestudeerd ben		,714		,815		,714		,996		,760
De belofte dat mijn inzetbaarheid vergroot zal worden door taakroulatie en training is geen vervanger voor een promotie	,418		,499		,418		,507		,467	
Als in een organisatie promoties traag verlopen zal ik waarschijnlijk binnen twee jaar naar een ander bedrijf verhuizen	,724		,654	,430	,724			,652	,722	
Ik wil niet voor een organisatie werken waar ik niet heel snel hogerop kan komen	,692		,647	,449	,692		,529	,546	,690	

Following from the EFA it can be concluded that for the nine aspects where differences in kinds of preferences occur, different conceptualizations are found for the youngest and older generations. For four of these nine scales, these differences resulted in a different scale construction. In the scales measuring challenge, transformational leadership, social support and promotion opportunities items were removed in accordance with the factor structure that was extracted by the youngest generation. So for these aspects, the results suggest that the youngest and older generations actually use different aspects to conceptualize the same construct. For the other five scales where differences in factor loadings were revealed, some nuances can be made in what both groups consider core-aspects of the construct.

4.2 RELIABILITY ANALYSIS

After removal of some of the items following from the factor analysis, the reliability of the scale was tested again using Cronbach's alpha. Results of the analysis are presented in table 19 (page 42). The scales where items were removed according to the factor analyses were tested again on their reliability. For these scales, Crohnbach's alpha was calculated for each separate sample. The results of this are presented in table 19.

Six of the in total fifteen scales did not show differences in factor structure according to the CFA. An overview of the items of these scales is presented below. For each scale, items that could improve reliability were removed and marked in red.

Job-Flexibility

Reliability of the original scale measuring job flexibility was .71. Although this value is sufficient it could still be improved by removing one item. Without the fourth item, reliability could be improved to .72 (table 13). This can be explained by the fact that this item was the only negatively worded item.

Table 13. Items of the job-flexibility scale

Job flexibility
Ik wil voor een bedrijf werken waar baanomschrijvingen vrijblijvend en veranderbaar zijn
Ik zou graag een ongestructureerde baan willen; anders ga ik me vervelen
Het lijkt me spannend om in een organisatie te werken waar verwacht wordt dat ik mijn eigen baan 'uitvind' terwijl ik bezig ben
Ik zou het verwarrend vinden om ergens te werken waar mijn taakomschrijving onduidelijk is (R)

Spatial and temporal flexibility

The reliability of the original scale measuring spatial and temporal flexibility was just below the cutoff point with an alpha of .68. With the removal of item 2 this could be raised to .70. The content of the item that was removed was concerned with parental possibilities (table 14). The fact that this item is not really relevant for people without children possibly explains why this item did not perform well in the total sample.

Table 14. Items of the spatial- and temporal flexibility scale

Spatial and temporal flexibility
Ik wil zo nu en dan thuis kunnen werken
Ik wil dagen vrij kunnen nemen voor een ziek kind zonder salaris of vakantiedagen te verliezen
Ik wil mijn eigen begin en eindtijden kiezen
Ik wil een kortere werkweek met meer uren per dag
Ik wil mijn dagindeling dagelijks kunnen veranderen
Ik wil zelf bepalen wanneer ik een pauze neem

Innovation orientation

Reliability of the scales measuring innovation orientation (.84) and social responsibility (.72) were already sufficiently high and could not be raised by removing any items (table 15 and 16).

Table 15. Items of the innovation orientation scale

Innovation orientation
waar werknemers aangemoedigd worden om allerlei voorstellen voor verandering te doen
waar er van werknemers verwacht wordt uit te kijken naar nieuwe mogelijkheden voor de organisatie
waar werknemers zelf met nieuwe ideeën komen om de organisatie te verbeteren

Table 16. Items of the social responsibility scale

Social repsonsibility
die nadenkt over zichzelf
die een goede reputatie heeft
die maatschappelijk verantwoord werkt
die een duidelijke sturende filosofie heeft

Fast-tracks

The reliability of this original scale was just below cutoff point (.69). By removing item 4, reliability could be improved to .70, removal of item 6 results in an alpha of .71. Both items were negatively formulated which could be the explanation for not performing well in the scale (table 17).

Table 17. Items of the fast-tracks scale

Fast-tracks
Ik wil voor een organistie werken die een “fast-track” programma heeft voor goede presteerders
De beste banen en promoties moeten gaan naar diegenen binnen het bedrijf die in het “fast-track” programma zitten
“Fast-tracks” zijn slecht, omdat ze mensen te vroeg bestempelen als 'snel' of 'traag' (R)
Iedereen moet een eerlijke kans hebben op promotie, zelfs als ze in het verleden niet altijd even goed hebben gepresteerd (R)
Organisaties zonder “fast-tracks” zijn onaantrekkelijk voor de beste sollicitanten
Ik werk liever voor een organisatie waar het niet duidelijk is of je wel of niet op een 'fast-track' zit (R)

Learning- and development opportunities

The original scale for learning and development opportunities had an alpha of .69. This could be improved by removing item 1 of the scale resulting in an alpha of .74. The removed item could be characterized as the only item where the organization takes up an active role in determining which skills to develop (table 18). As in the rest of the items the organization has a more facilitating and supporting role this deciding role could possibly be interpreted as too much interference.

Table 18. Items of the learning and development scale

Learning and development
Ik wil voor een organisatie werken die me helpt te besluiten welke vaardigheden te ontwikkelen
Ik wil voor een organisatie werken waar leer- en ontwikkelingsmogelijkheden ontworpen zijn om allerlei vaardigheden te ontwikkelen
Ik wil voor een organisatie werken die trainingen aanbiedt in gevorderde vaardigheden
Ik wil voor een organisatie werken die bereid is om leer- en ontwikkelingsmogelijkheden aan te passen aan mijn behoeften

There still were three scales with alphas below the cutoff point of .70. However, this concerns two or three item scales and therefore no more items could be removed. In total, in the factor analysis and reliability analysis a number of 18 items have been removed. The total questionnaire now consists of 67 items. The descriptive and reliability of all the scales after removal of the items are presented in table 19 below.

Table 19. Descriptives and correlations of the work preference scales after removal of items

				Crohnbach's α				
Scales	Number of items	M	SD	Total sample	Youngsters	Non-youngsters	Students	Workers
1. Challenge	4	4.11	.59	.71	.64	.73	.63	.72
2. Task Significance	4	3.53	.72	.84	.83	.83	.81	.84
3. Job Flexibility	4	3.15	.77	.71	-	-	-	-
4. Flexibility	5	3.87	.64	.70	-	-	-	-
5. Praise & Recognition	2	4.15	.59	.54	.52	.55	.47	.56
6. Pay Individual	4	2.92	.79	.79	.77	.80	.71	.81
7. Pay Group	3	2.63	.88	.81	.77	.83	.79	.82
8. Feedback	4	3.47	.75	.78	.76	.79	.77	.79
9. Transformational	7	4.26	.54	.86	.83	.86	.83	.86
10. Transact – Reward	4	3.74	.61	.67	.67	.67	.68	.67
11. Transact - Exception	3	2.12	.83	.73	.75	.68	.74	.71
12. Social Support	6	3.92	.58	.81	.87	.78	.87	.79
13. Innovation Orientation	3	3.87	.68	.84	-	-	-	-
14. Social Responsibility	4	4.00	.59	.72	-	-	-	-
15. Promotion Opportunities	3	3.42	.66	.54	.48	.55	.43	.57
16. Fast-track	4	2.78	.67	.70	-	-	-	-
17. Learning & Development	3	4.21	.54	.74	-	-	-	-

4.3 EXPLORING DIFFERENCES

To answer the question whether the youngest generation really has higher levels of preferences for the constructs, several *t* tests were conducted. Next to the comparison of the youngest and older generations, two samples differing in work experience were also distinguished to analyze the effects of work experience. Table 20 presents the means on the scales for the samples that were compared in the analysis (left four columns). The aspects are presented in according to the descending order of the means of the youngest generation. This means that youngsters scored the highest on learning and development opportunities and the lowest on transactional leadership, management-by-exception. Although organizational attractiveness is not measured as a distinct variable, it can be concluded that the scales on which youngsters score the highest are also important in determining organizational attractiveness. For example, if an aspect that you find important is not offered by an organization this will have a larger influence on your evaluation of organizational attractiveness than is the case for aspects that you do not consider important. The results of the *t* tests that were conducted to compare the groups are also presented in table 20 (columns on the right).

Table 20. Means on the scales and results of t-tests

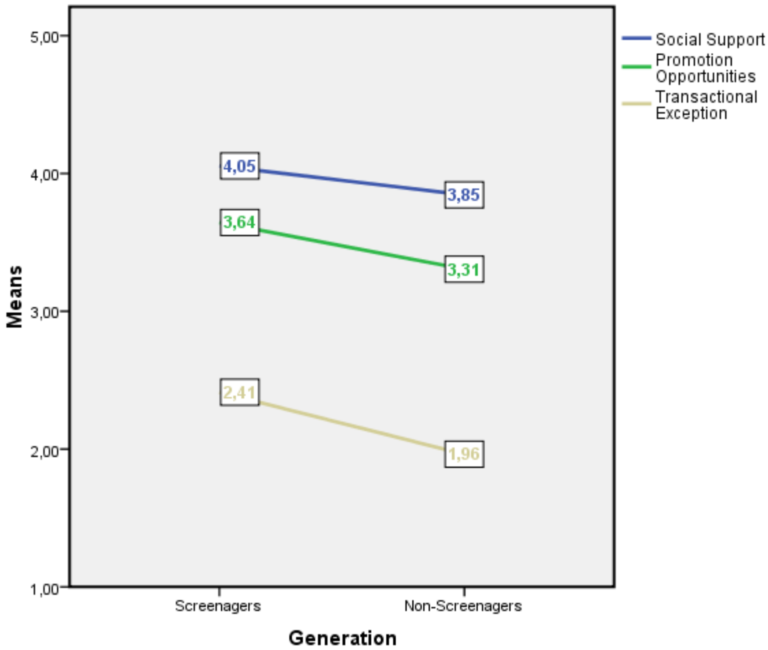
Scale	Youngest generation M	Other generations M	No Work experience M	Work experience M	Young vs Non-young *p*	No experience vs work experience *p*	Youngsters: with vs without experience *p*
Learning_Development	4,22	4,21	4,20	4,21	,84	,88	,58
Praise_Recognition	4,17	4,14	4,08	4,17	,70	,26	,08
Challenge	4,15	4,09	4,17	4,09	,46	,33	,92
Transformational_Leadership	4,12	4,33	4,09	4,32	,00**	,00**	,07
Social_Support	4,05	3,85	4,03	3,88	,00**	,06	,35
Social_Responsibility	3,85	4,08	3,77	4,08	,00**	,00**	,03*
Innovation_Orientation	3,81	3,91	3,80	3,90	,24	,30	,23
Transact_Reward	3,77	3,73	3,70	3,76	,59	,51	,06
Flexibility	3,71	3,95	3,58	3,97	,00**	,00**	,00**
Promotion_Opportunities	3,64	3,31	3,58	3,36	,00**	,02*	,44
Direct_Feedback	3,49	3,45	3,48	3,46	,66	,87	,39
Task_Significance	3,38	3,60	3,34	3,59	,02*	,01*	,27
Job_Flexibility	3,14	3,15	3,21	3,13	,95	,43	,37
Pay_Individual	3,01	2,88	3,13	2,85	,20	,01*	,20
Pay_Group	2,76	2,56	2,83	2,56	,08	,03*	,54
Fast_Track	2,75	2,80	2,74	2,80	,61	,53	,44
Transact_Exception	2,41	1,96	2,39	2,02	,00**	,00**	,54

(=p < .05; ** = p < .01)*

4.3.1 GENERATIONS

As the main topic of interest the differences in work preferences between the different generations were assessed comparing the youngest generation with the older generations. There were three scales on which the youngest generation scored significantly higher than the older generations (table 20). This was the case for social support (*p* = ,004), promotion opportunities (*p* = ,000) and transactional leadership, management by exceptions (*p* = ,000). This means that youngsters place greater emphasis on the social aspects of work and personal interaction than older generations do. Also it can be concluded that youngsters value promotion opportunities more than older generations (figure 5). Note that promotion opportunities (M = 3.64) are not valued as high as the preference for social support (M = 4.06). Concerning leadership youngsters (M = 2.42) and non-youngsters (M = 1.96) both score well below the neutral score of 3 and actually prefer this aspect the least. This means that, although the samples differ significantly, both samples don't seem to have a preference for a leader who uses a management-by-exception style.

Figure 5. Scales on which youngsters score significantly higher



Contrary to expectations, the older generations scored higher on four scales. This was the case for task significance (p = ,021), social responsibility (p = ,003), flexibility (p = ,003) and transformational leadership (p = ,003). So it seems that in comparison with the youngest generation, older generations place greater emphasis on the influence their work has on others and the extent to which the organization is socially responsible. Further, older generations value flexible options more and a leader who shows transformational behavior is appreciated. Note that although the differences are significant it is only the level of preference that differs between the samples. It is not the case that one sample prefers the construct where the other sample dislikes the construct.

Overall it can be concluded that for most constructs the expectations are not met. As the scales used in the questionnaire were chosen based on the preferences of the youngest generation and the factor structure as extracted by this generation, these youngsters were expected to have higher levels of preferences. With only three scales on which youngsters score significantly higher and four scales on which they score significantly lower this is clearly not the case. It has to be said however, that except for four scales, youngsters showed a (small) preference. Only the two types of pay, fast-tracks and transactional leadership management by exception scored below the neutral score of 3. This implicates that these aspects are not the factors which the youngest generation find important.

4.3.2 WORK EXPERIENCE

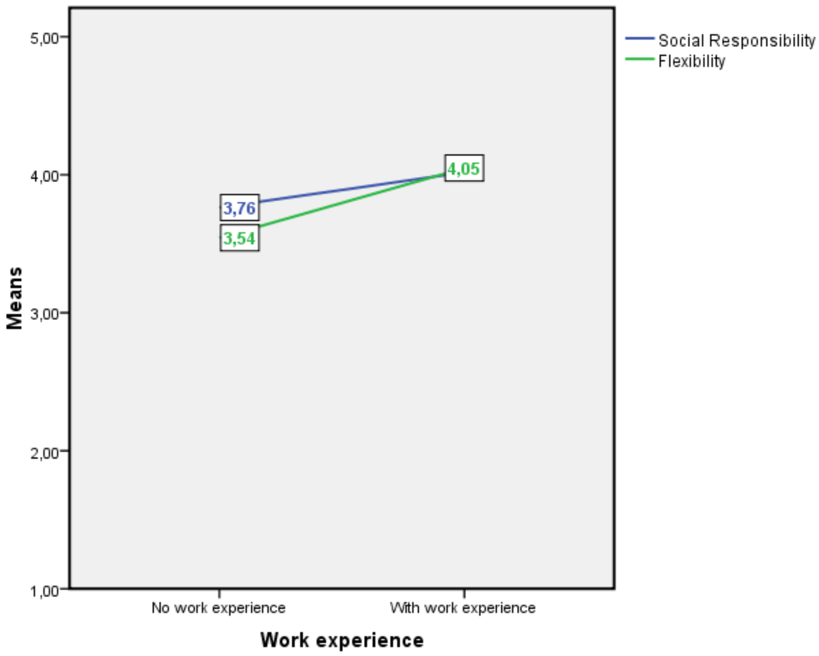
In exploring the differences on the work preference scales, work experience was also assessed as an alternative explanation of differences. In the comparison between a sample without work experience and a sample that does have work experience there were eight scales that showed significant differences. On four scales, people without work experience scored significantly higher. This was the case for; individual pay (p = .01), group-based pay (p = .03), promotion opportunities (p = .02) and transactional leadership, management-by-exception (p = .00). So before someone starts to work, these four aspects are significantly more preferred than by people that do have work experience. Compared with generational differences, it appears that both individual pay and group-based pay show differences that could be ascribed to effects of work experience. It should be noted although that the means for pay all lie under or around the neutral score of 3 implicating that even for the student sample pay does not seem to be very important. The differences on the scales measuring promotion opportunities and transactional leadership management-by-exception could be ascribed to effects of both generations as work experience. On four other scales, people that do have work experience scored significantly higher, this was the case for task significance (p = .01), social responsibility (p = .00), flexibility (p = .00) and transformational leadership (p = .00). These are the same scales that were preferred by the group of older generations which means that both work experience and generation effects could explain these differences.

4.3.3 GENERATION VS WORK EXPERIENCE

From the analysis above it appears that on six scales significant differences were found that could be explained by both generation and work experience effects. Entangling which effect really determines these differences is hard. When comparing between generations and work experience in the scales that showed significant differences, it can be seen that one scale could be ascribed to difference in generation. In the preferences for social support, significant differences were only found in the comparison of generations. This implicates that the high level of preference for social support is characteristic for the youngest generation rather than being caused by a lack of work experience. On the other hand, significant differences in the preferences of both individual pay and group-based pay were only found in the comparison on work experience. This implicates that the relatively higher preference for pay can be explained by a lack of work experience rather than being characteristic for the youngest generation.

To assess the effect of work experience for the youngest generation a t test was also conducted to compare a group of youngsters with work experience with a group without work experience. This analysis showed that youngsters who do have work experience have higher levels of preference for social responsibility (p = .03) and flexibility (p = .00). This implicates that after first experiences with the working life, youngsters will value the social responsibility and flexible work options even more than before they started working (figure 6). So these results suggest that the importance of these two aspects can be ascribed to work experience.

Figure 6. Significant differences in the work preferences of Screenagers distinguishing in work experience



<u>In conclusion:</u>

In this chapter, I presented the output of the analyses. It appeared that there are two types of differences. On the one hand differences in kinds of preferences which are expressed by different conceptualizations of work related constructs. On the other hand there were differences in the level of preferences as youngsters scored higher on three scales and lower on four scales compared with older generations. Whether these effects are caused by generation or work experience is hard to distinguish. However it seems that the high level of preference for social support can mainly be attributed by generational influences. In the next chapter I will further interpret and discuss these results.

5. DISCUSSION

Using the results from the conducted analyses in the previous chapter, the information is interpreted. After that, the theoretical and practical implications of this are explained. Further, the limitations of the research are described as well as some suggestions for further research.

5.1 MAIN FINDINGS

The overall conclusion that can be derived from the results is that the differences between generations are not as sweeping as stated in popular press. As only three scales were valued higher by youngsters, there were more similarities than there were differences. Although contradictory to the statements of popular press, this finding is consistent with the sparse empirical research that also reports on generational differences. These researches also found few differences between generations with mostly relatively small effect sizes (Deal, Altman, & Rogelberg, 2010).

The discussion of the findings for each of the aspects will further be structured by the two types of results that have been found. First, the differences in kinds of preferences are be discussed and after that the differences in levels of preferences will be commented on.

5.1.1 DIFFERENCES IN KIND OF PREFERENCES

These differences provide valuable information because they give the insight that although different groups prefer the same construct, the real meaning behind the construct could be different for each group. The issue of difference in meaning behind a construct is an issue that has been rarely studied in this context (Deal et al., 2010). As many studies do not control for measurement equivalence, this may have resulted in faulty conclusions.

'Challenge' - In the construct 'challenge' it appeared that young people mainly conceptualize 'challenge' as work that allows them to *deal with difficult problems*, *offers opportunities to develop new skills* and *demands a great deal of curiosity*. Contrary to older generations, *dealing with problems that are completely new*, as stated in the first item, is not conceptualized as 'challenge'. So apparently youngsters consider work challenging when they come across problems that are difficult but not necessarily new. An explanation for this could be that for youngsters, who just started working, most problems they come across will be new. Looking back on the definition of challenging work in the Manpower study (2006), one of the characteristics was that youngsters do not like to be stressed in the process of work. In this light, completely new problems could result in a stressful situation and are therefore not considered as challenging.

'*Task significance'* – In this construct more subtle differences were found. No items were omitted in the rest of the research as only differences were found in height of the factor loadings. Nevertheless, from these differences it could be derived that youngsters and students consider ‘having an effect on and influencing other people’ as core-aspects of task significance. This implicates that youngsters especially want to ‘make a difference’ in an interpersonal context. This could be explained by the fact that youngsters value social approval higher than older generations (Kowske, Rasch & Wiley, 2010).

‘Transformational leadership’ – Regarding the characteristics of a transformational leader the youngest and older generations agree on some important behavioral aspects. However, both groups use aspects to conceptualize transformational behavior which are specific for their generation. For the youngest generation this specific aspect concerns leaders who have vision and a clear picture of the future. This could be explained by the fact that because of their age, this generation probably does not yet have developed a vision or clear picture of the future themselves. It could also be that for youngsters, the vision and picture of the leader represents the direction in which the organization is heading. This underlying direction of the organization has proven to be of importance for this youngest generation (Ng, Schweitzer, & Lyons, 2010). Older generations were found to have specific preference for aspects of leadership involving empowerment of employees and facilitation of employee influence. This finding contradicts previous findings which stated that for the youngest generation; aspects involving employee influence were expected to be included in the definition of a ‘good’ leader (Broadbridge et al., 2009). As stated before, youngsters are said to like an inclusive style of management and therefore would expect their leaders to actively involve them in daily business (Broadbridge et al., 2009).

‘*Social* support’ - The construct ‘social support’ appeared to consist of more aspects for the youngest generation than it did for the older generations. Older generations clearly distinguished between social aspects through work and social aspects through colleagues. For young people however, the fact that all the items loaded on one factor gives us the insight that Screenagers do not see ‘social support’ through work and through people as distinct constructs. Rather, social support is a construct that encompasses all kinds of social aspects. These results are in line with previous research which concluded that youngsters see their working life as an opportunity to expand their social life. So instead of just seeing work solely as work, youngsters expect a lot of workplace interaction and to develop relationships at work (Myers & Sadaghiani, 2010). As Boschma & Groen (2007) found, the line between social life and working life gets vaguer for this youngest group.

‘Promotion opportunities’ - Youngsters clearly distinguished ‘the basis for promotions’ and ‘type of opportunities that are offered’ as the core-aspects of this construct whereas ‘fast promotions’ and ‘tendency to leave in absence of opportunities’ were less clear as they loaded on two factors. Conversely, the older generations only distinguished between promotion opportunities and promotion within one or two years after leaving college. As youngsters are ascribed to have expectations of rapid promotion, this conceptualization is remarkable as the item of the scale that reflected this preference for rapid promotions was not considered to be one of the core-aspects of promotion opportunities. This suggests that for the youngest generation, promotional issues can be divided into opportunities offered by an organization and the speed of promotions, intentions to leave in absence. This finding has to be interpreted with caution though as the found differences can partly be ascribed to the fact that two items were not suitable for the worker and non-Screenager sample. This could also have led to the differences in factor structure.

5.1.2 DIFFERENCES IN LEVEL OF PREFERENCES

The way the different scales were valued also differed significantly between generations. It was found that in seven of the fifteen scales that were used, significant differences were found between the youngest generation and other generations. Remarkable however, is that in many of these cases the youngest group seems to score significantly lower where - on base of steps taken in this study - they were expected to score higher on these specific preferences. On only three scales the youngest generation showed to have a higher level of preference (figure 8).

Figure 8. Scales that showed differences between generations

Constructs / Scales *Outcomes*

Type of work & Work environment	
Challenge	Challenge
	Task significance
Flexibility	Job Flexibility
	Spatial and temporal flexibility
Compensation system	Praise and recognition
	Pay preferences
	Feedback seeking behavior
Management style	Transformational leadership
	Transactional leadership *
Organizational culture	Social support
	Innovation orientation
	Social responsibility
Promotion opportunities	Promotion opportunities
	Fast-tracks
Learning- and development opportunities	Learning and development

Preferences of youngest generation

Preferences of older generations

** The youngest generation scored significantly higher than older generations on the scales marked in red*

´Challenge' - There were two scales that were supposed to measure the construct 'challenge'. Amabile's 'challenge' scale (1996) scored an average above 4 for all generations, emphasizing the importance of the construct. However, it did not yield any significant differences between generations. On the 'task significance' scale however, the Screenagers scored significantly lower than the older generations. Meaning that the youngest generation has a lower level of preference for the impact ones work has in the broad sense and on others inside as well as outside the organization. A possible explanation for this is that Screenagers are more focused on their own situation rather than worrying about their influence on others. This is in line with what Ng et al. (2010) found previously, that Screenagers place great importance on the individualistic aspects of a job.

´Flexibility’ - Of the two scales that measured ‘flexibility’, only one resulted in significant differences. Where flexibility in job content did not yield any differences, flexibility in choosing your own place and time of work did. Although all samples scored relatively high on this scale, the youngest generation valued it significantly lower than the older generations. A possible explanation for the high score of this older group is that for older generations the family and child obligations are more relevant. Flexibility options in this essence are seen as ways to manage work and family time demands (Lewis & Roper, 2008). This explanation would mean that this difference is more a stage-of-life effect rather than being a generation effect. When distinguishing the youngest group on work experience it was found that youngsters with work experience value flexibility higher than youngsters without work experience. This suggest that the higher scores on flexibility can be explained by work experience.

‘*Compensation* system’ - Concerning the scales that together encompassed the ‘compensation system’ all three scales did not reveal significant differences between generations. ‘Praise and recognition’, ‘direct feedback seeking behavior’ as well as ‘pay preferences’ were not rated significantly higher by any of the generations. Note that both individual as group-based pay were valued higher by the sample without work experience. This indicates that there are differences in preferences for this construct that can be ascribed to work experience rather than generation effects. All samples scored very high on praise and recognition, suggesting the importance of being praised for achievements.

‘*Management style’* - This is clearly one of the constructs on which the most differences were found. Regarding the factor structure, we saw that ‘transformational leadership’ was conceptualized in a different manner by the youngest generation. Furthermore, the older generations seemed to value a transformational leader higher than the youngest generation. On the other hand, the transactional leader, who shows management-by-exception behavior, is valued more by the youngest group compared to the older groups. One explanation for these significant differences is that the youngest generation has not had much experience with supervisors yet. Maybe this lack of experience with supervisors makes it harder for youngsters to evaluate and value certain characteristics of a leader. A different explanation could be that the items in the transactional leadership scale were all focused on receiving control and feedback from a supervisor. It could be that the older groups perceive this purely as control as it limits their freedom whereas the youngest group perceives this more as supervision. Yet, this youngest group has little experience and can therefore benefit from all the feedback they can get. This need for clear feedback from their supervisor is also recognized by previous findings (Manpower, 2006).

‘*Organizational* culture’ - The organizational culture consisted of three different scales. It appeared that the ‘orientation for innovation’ of an organization is valued reasonably high by all generations. ‘Social support’ however was valued more by the youngest group. This underlines the importance of social contacts for this generation. As described in literature on generations, young people highly value their social life and they will try to organize their work life in such a manner that it will never intervene with their social life. This result also implicates that youngsters are looking to broaden their social life through their work. They would like to see work as a place to get to know new people and get along well with everybody. The other scale of culture, social responsibility, also showed significant differences. It is said that by growing up in a world in which environmental issues have always been highly visible and living environmentally responsible is stressed, young people are said to be socially responsible (Steensel, 2000). This research has shown however, that the youngest group values social responsibility significantly lower than the older groups. A possible explanation for this could be that the youngest generation is more focused on themselves than their environment (Ng et al., 2010).

'*Promotion* opportunities' – Of the two subscales in this aspect, one yields significant differences where the other does not. On the scale measuring 'fast-tracks' both samples scored low without any significant differences. So the clear presence of fast-tracks within an organization is not important for all generations. 'Promotion opportunities' on the other hand did show significant differences, with the youngest generation scoring significantly higher than older generations. This probably comes from the fact that some older workers have already had a promotion which makes it less important for them. Although the youngest group considers these aspects significantly more important than older generations, promotion opportunities do not seem to be their main priority. Compared with the means of other aspects, there are nine scales that score higher than promotion opportunities (M = 3.64). The low score for promotion opportunities could be an effect of the Dutch culture which is characterized by low masculinity (Hofstede, 2005) while promotion opportunities are an example of masculine aspects of work (Terjesen, Vinnicombe & Freeman, 2007).

'Learning- and development opportunities' - Considering the last construct that was measured the findings showed that there were no significant differences between generations. This aspect scored the highest in the Screenager sample and second in the non-Screenager sample. Apparently all generations have a very high level of preference for learning and development opportunities. These results suggest that although youngsters find learning and development important, it is not characteristic for their generation. Rather it is important that sufficient learning and development opportunities are present for employees of all generations.

The above described results have led to an answer on the main research question:

> *Do the work preferences of technical Screenagers differ significantly from that of older technical generations, and if so, on which aspects?*

It has been found that technical Screenagers do differ from older technical generations, both in kinds of preferences as in levels of preferences. Differences in the kinds of preferences are expressed in different conceptualizations of the following constructs: challenge, transformational leadership, social support and promotion opportunities. Differences in levels of preferences were found in seven scales. On three aspects the youngest generation scored higher: social support, promotion opportunities and transactional leadership. Contrary to expectations, technical Screenagers also value some aspects lower than older generations; this is the case for task significance, social responsibility, spatial and temporal flexibility and transformational leadership. Although there were some significant differences in levels of preference, they were only expressed by a slightly lower or higher level of preference.

5.2 IMPLICATIONS

5.2.1 THEORETICAL IMPLICATIONS

First of all this research adds to the relatively small number of existing work preference instruments. The instrument that was developed for this study takes on a different approach than that of other instruments. It uses different constructs that are mentioned by the youngest generation as being the most important. Existing scales that were

designed to measure these constructs were combined to form a general work preference instrument. This resulted in a questionnaire which is the first step to a work preference instrument tailored to the youngest generation.
Second, this study is one of the few that controls for measurement equivalence. Where most research focuses only on differences in levels of preferences, this research gives insight into differences in underlying meaning of constructs. More specifically, valuable information is gathered on the concepts the youngest generation uses to operationalize work related constructs.
Third, this study analyzed both generation and work experience effects in an attempt to isolate the differences that can be attributed to effects of generations. It appeared that most of the results can be explained by both generation - and work experience effects. The results suggest that only the difference in preferences for social support can be attributed to generation effects.

5.2.2 PRACTICAL IMPLICATIONS

The results of this study contribute to the question what an organization can do to increase its attractiveness. First of all, organization could use the differences between generations in conceptualizations of work related constructs to specifically address certain generations. By using the definitions of the youngest generation in their advertisements, job offers and other communications they would more easily draw the attention of potential applicants. For example, the social aspects within the organization have to be embedded in everyday work. Also the vision and clear picture of managers should receive plenty attention.
Second, the small differences between generations suggest that organizations do not necessarily have to distinguish between generations in their policies and practices. Only the social opportunities within an organization have to be adopted and secured especially for the youngest generation. On the other aspects, it seems like the extra costs of specifying policies to specific generations are not in balance with the potential benefits.
Third, the results give insight on which aspects youngsters have the highest levels of preferences. Learning and development opportunities are important for all generations so everybody should have sufficient access to these opportunities. If present, these opportunities should also be communicated outside. Other aspects that seem important for youngsters are transformational leaders, challenging work and praise & recognition. In order to become attractive as an organization, these aspects seem to be of importance as youngsters value these the most. So these aspects should receive special attention when it comes to the recruitment and management of youngsters.

5.3 LIMITATIONS

As with every research, this study has a few limitations. First of all, the issue of age versus generation effects limits the conclusions. As with every research on generations there is the methodological difficulty of establishing differences between generation effects and age-effects (Wong, Gardiner, Lang, & Coulon, 2008). Although the results are interpreted as generation effects this could also be effects of stage-of-life or time period.
Second, even though the response rate was quite good the total pool of respondents was still too small. For conducting *t* tests and comparing means an 'n' of 263 is no problem, but the factor analysis actually required a greater number of respondents. This could have influenced the conclusions on the factor structure of the scales and consequently the comparisons between generations.

Third, although it is concluded that younger people differ from older groups, I have to stress that the results are not generalizable to the complete population. I assessed a specific group of people; young technical people. This sample also was not randomly selected. The biggest part of the respondents was a group of people working at TNO and the student sample all took part in selected courses. This might also explain some of the contradictory results.
Fourth, the scales that were used to measure the constructs could also have influenced the outcomes. Most of the items are originally used in an evaluative context and were reworded into a preference context. Normally the adapted scales as used to compare means should first be validated with another sample. Due to a lack of time this was not possible.
Fifth, the larger context in which the study took place might also have influenced the results. At this time we still feel the effects of the global economic recession which probably has its effect on the expectations of youngsters. As Deal et al. (2010) also state that '*before the recession everyone – regardless of generation – expected more than they do now in a depressed economy*'.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

The limitations together with some other issues lead to suggestions for further research. First, longitudinal research is needed to determine whether it really is generations that cause these differences and not period or stage-of-life effects. A design such as used by Kowske et al. (2010), which controls for effects of age and time period, is a good attempt in trying to disentangle the effects on work preferences and other related outcomes.
Second, in order for the instrument to become a good work preference instrument it needs more development in the future. First of all another sample is needed to validate the instrument. Also, in order to be able to derive any conclusions on a generational level, different samples are needed to test the generalizability of the instrument.
Third, an aspect that should receive attention in the future is the relation of the preferences for the constructs used in this study and recruitment outcomes. As a basis for this study, I used the type of work and work environment because of their relatively high relations with recruitment outcomes. In this study however, the relation with recruitment outcomes was not tested. In future research, the relations of the constructs in the designed work preference instruments with recruitment outcomes should be tested. Especially the outcome 'job choice', which has been proven to be very hard to predict, should receive extensive attention.

<u>In conclusion:</u>

In this study an attempt was made to develop a work preference instrument tailored to the preferences of the youngest generation. When comparing the youngest generation with older generations it can be concluded that this study resulted in some valuable insights in the work preferences of youngsters. It appeared that there are many similarities between generations and only a few significant differences. For some aspects these concerned differences in the underlying meaning of the construct whereas for other constructs these concerned higher or lower levels of preferences. The overall feeling that remains is that, although some differences were found, the enormous differences as mentioned in the popular press were not supported by these findings. However, reflected by the contradictory results in previous studies, the subject requires further attention in order to be able to conclude on this.

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