Why are so few women promoted into top management positions?

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**Title of thesis:** Why are so few women promoted to top management positions?

**Abstract:**

In Finland and most countries, female representation in executive positions is scarce. This study examines whether gender differences in career and family related preferences and traditional stereotypical beliefs might have an effect on the observed promotion gap between men and women to into top management positions in Finland.

The theoretical framework builds on a model of statistical discrimination proposed by Bjerk (2008). The model suggests that gender differences in promotions may be caused by disparities in skill level, signaling precision and signaling intensity. Special focus in this study is laid on parameters that affect the signaling intensity, more specifically societal structure, time consumption, norms and preferences.

The approach for the empirical study is quantitative. A questionnaire was developed to examine career and family related preferences of Finnish middle managers with an academic background in either engineering or business. Results suggest that male managers have more preferences towards pursuing a career than female managers; they are significantly more willing to consider promotions and aim to achieve a higher organizational level. Female managers on the other hand show more preferences towards family. Having children does not permanently alter managers’ career goals differently; however women take a significantly larger share of household and childcare duties and are more likely to face a temporary career slowdown after having had children. Further, Finnish managers in general, are rather traditional in their beliefs regarding women’s career interests. These beliefs appear to have an impact on what is considered acceptable and how individuals act. The differences in preferences, societal structure and social norms seem to affect each other and help to explain gender differences in promotions.

**Keywords:** statistical discrimination, promotions, female leadership, career aspirations, family and work balance
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1 INTRODUCTION

In recent years the low proportion of women in executive management and board positions has gained a lot of attention and given rise to public discussion in Finland and worldwide. Statistics show that the higher up in the corporate hierarchy, the lower the female representation throughout the European Union (EC, 2008). Today, women comprise almost half of middle managers in Finland (Tilastokeskus, 2010). However, women make up only 15.3% of the Finnish listed companies’ executive management and there is only one single female CEO in all listed companies on the Helsinki Stock Exchange (Optio, 8/2013). In spring 2013 women held 18% of board positions in listed companies (ibid.)

The low representation may be considered paradoxical since women today are more educated than men and represent a majority at universities (Tilastokeskus, 2011). Similarly, girls outperform boys in primary school scoring higher grades in three out of four subjects (Opetushallitus, 2004). In addition, Finland has the highest female labor participation in Europe in terms of full time employment (Confederation of Finnish Industries, 2013). This has been reached; while at the same time a relatively stable fertility rate has been maintained during the past decades (OECD, 2002).

Why it is a problem that women are underrepresented in the highest corporate hierarchies? Evidence shows that men and women possess the same skills and abilities, as goes for educational attainment. Similarly, in a study by Statistics Finland from 2008, employees were found to be more satisfied with female managers’ leadership style than male managers’ (Lehto, 2008). This implies that the myth of women being less suitable leadership positions would not hold. Studies have also found that management diversity in general can have a positive effect on firm performance (see e.g. Smith et al., 2006, Armstrong et al., 2010). This could be because a more diverse board may have a broader understanding of the marketplace compared to a more homogenous board. Board diversity may also increase creativity and innovation. (Smith et al. 2006). Finally, a compelling argument is that Finland simply cannot afford to neglect half of its talent pool. Talented women should be seen as a resource in order to gain competitive advantage, especially since Finland is faced with pressures from increased competition and an aging population structure.
In terms of increasing the proportion of women in the highest corporate positions, more specifically in the boardrooms, there are a variety of possibilities. These include mandates or quotas for female directors and Stock Exchange and Corporate Governance Commissions requirements on diversity on corporate boards. On the other hand, executive management experience, especially CEO experience, is generally considered important in order to be influential on boards. This means that women should have more executive management experience, and more specifically CEO experience, in order for the proportion of women to increase on executive boards.

1.1. Purpose

The purpose of this study is to examine why women lag behind men when it comes to promotions into executive management and beyond. The purpose is reached by reviewing theories and literature in this field and by conducting an empirical study, where Finnish men and women in middle management are surveyed. It has often been suggested that the promotion gap is a result of choices professional women make; they simply do not aspire to senior management positions or they give up their career ambitions to start families. The familiar explanations have not, to the author’s knowledge, been tested on Finnish data and there have not been any previous studies explicitly focusing on if and how Finnish men and women differ in their career and family preferences and to what extent middle managers have stereotypical beliefs regarding female roles and whether differences among beliefs between younger and older managers can be observed. In other words the study aims to contribute with new relevant information to the current discussion.

1.2. Problem background and scope

Given the almost equal percentage of men and women in middle management positions, one would expect to have seen a steady increase of women in senior management positions in the past decades. However, development has been slow and the proportion of women promoted to executive management positions has remained low. This theme is actively discussed worldwide. For example quota legislation regarding female representation on corporate boards, first passed as a law by Norway in 2006, has stirred the business community and drawn attention to the situation at hand. Also, influential business people such as Jorma Ollila, Warren Buffett and Sheryl
Sandberg have publicly voiced their concern regarding women’s low representation in senior management.

There are multiple theories and arguments presented to explain the observed gender gap in senior management positions. This thesis approaches the promotion gender gap by developing a framework around statistical discrimination, more specifically Bjerk’s (2008) promotion model. Bjerk’s model explains promotion inequality between groups by focusing on possible group differences in average skill level, the precision with which they can signal and the frequency with which they have the opportunity to signal. Based on the model, parameters that may explain promotion disparities between genders are derived and further examined.

In the empirical part Finnish middle managers with an academic background in either engineering or business are questioned about their career and family related perceptions and choices and stereotypical beliefs about women’s roles and female leadership. Middle managers are chosen as the target group since it is the organizational level where women seem to be facing a glass ceiling i.e. they have difficulties getting promoted past this point. The empirical study will focus on three interconnected themes: the first one concentrates on gender differences among career aspirations and preferences, the second one outlines the gender differences in family related questions and the third is about the influence of stereotypical beliefs. By combining previous research in the field with an empirical study on Finnish middle managers career and family related choices and preferences as well as stereotypical beliefs regarding women’s roles and career interests, the aim of this study is to answer the following main question:

What factors explain the promotion disparities to the highest corporate positions between men and women?

More specifically, the research questions are:

RQ 1: Do Finnish men and women in middle management differ in their career and family related choices and preferences?

RQ 2: Do Finnish men and women in middle management have stereotypical beliefs regarding female roles and leadership and are there age dependent differences in beliefs among middle managers?
1.3. Delimitations

In order to clarify the scope of the study, the focus will mainly evolve around the theory of statistical discrimination in promotions, more precisely the model introduced by Bjerk (2008). The study concentrates on differences between men and women, although the theory in principle also applies to other types of groups.

The gender disparities in promotions are a complex issue and a result of multiple different factors. Previous studies acknowledge the importance of formal and informal social networking to career advancement (see e.g. Burt, 1992, Linehan, 2001) and the difficulties women have in accessing these networks may lead to difference in promotion opportunities for men and women. It is also recognized that especially women gain psychosocial and career-development support from mentoring, which may help them to overcome some of the barriers to advancement in organizations (Ragins, 1994). The effect of networking and mentoring is identified and further discussed as a possible reason for the observed promotion gap in the theoretical part; however, due to resource constraints the empirical part does not focus on the impact of these factors on women’s promotion possibilities.

Another central factor that affects promotion chances is educational choices and work orientation. Finnish women differ from men both in their educational choices and work orientations, which has an effect on promotions and wage differences (Confederation of Finnish Industries, 2013). These factors are covered in the theoretical part, however since the empirical study focuses on middle managers with the same types of educational background, in either engineering or business, this will not be the focus of the empirical part.

1.4. Structure

The study is divided into 7 chapters. First, the theory of statistical discrimination with regards to promotions and gender is presented. Based on the theory, parameters that may explain promotion disparities between genders are derived and further examined by reviewing previous research and literature in this field. Next, hypotheses are described followed by a description of the research methodology. This is followed by a chapter, in which results from the empirical study are presented. In the last chapter the results are discussed and the conclusions derived from the research will be connected to the problem and purpose, which were introduced in the first chapter.
2 THEORY

This section presents the theory of statistical discrimination and two variations of this type of discrimination, namely the glass ceiling and sticky floor. This is followed by a Bjerk's (2008) promotion model with focus on group differences between men and women. Finally, an extended version of the model, set forward by Smith et al. (2012), is presented.

2.1 Statistical discrimination

Statistical discrimination refers to a phenomenon where decision makers use observable characteristics such as group identity as a proxy for unobservable, but outcome-relevant, characteristics. In the labor market, statistical discrimination can occur when employers have imperfect information regarding worker skills, productivity, qualifications etc. In contrast to classical discrimination theories, also called taste-based discrimination\(^1\), employers do not have direct discriminatory preferences but are instead considered to be rational utility maximizing agents. Although direct discrimination is not present in this approach, due to incomplete information about some outcome-relevant characteristics, some groups may face different wage and/or promotion possibilities than others (Fang and Moro, 2010).

Phelps (1972) was the first one to develop a statistical model of discrimination. He argued that employers, who try to maximize their expected profit, will discriminate against women if they believe that women on average are less skilled, less credible or less committed than men. The following common textbook example explains this further: An employer will be reluctant to invest in specific human capital formation of women if he/she from past experience believes that young female employees are less committed to their work than men, perhaps due to women overall having a higher propensity to engage in child-rearing. This would be the case even if women were equally qualified compared to men. The employer is bound to rely on the group average when unable to observe an individual’s true labor market attachment (Fang and Moro, 2010). Similarly, statistical discrimination may arise if obtaining information about an individual candidate is costly. In this case again, an employer may be prone to base his/

\(^1\) This type of discrimination will not exist in the long term since discriminatory businesses will be outcompeted by non-discriminatory ones. Talented employees who experience discrimination will leave for non-discriminatory businesses where they can obtain a higher salary.
her beliefs about the candidate on the group characteristics, which the candidate belongs to (Phelps, 1972).

In Phelps’ (1972) model, discrimination is an agents’ efficient response to asymmetric beliefs. Another possibility is that discriminatory outcomes can have a component of inefficiency in the case that asymmetric beliefs across groups lead to the discriminated group performing worse. This approach, originally presented by Arrow (1973), states that employer’ asymmetric beliefs about members of different groups are self-confirming. Reconsidering the above example, it is possible that since employers are less likely to hire women for jobs that require labor market attachment, women become more likely to be involved in child-rearing than men. This further leads to women becoming less prone to acquire the necessary skills required to seek and perform well in those jobs. The asymmetric beliefs that employers hold regarding women’s labor market attachment are now confirmed, in other words employers’ beliefs turn into “self-fulfilling prophecies”

Next, two more concrete versions of statistical discrimination with focus on gender differences in promotion, the glass ceiling and sticky floor, are presented.

2.1.1. Glass ceiling

The glass ceiling concept refers to an invisible but powerful barrier that hinders women from rising to the top corporate positions (Carly & Eagly 2001). Lazear and Rosen (1990) were among the first ones to set up an economic model that described gender differences in promotions, predicting a glass ceiling in promotion rates for women. The model focuses on job switches, since this is when the promotions and pay rises often take place. Promotion choices are based on two factors, worker skill and work commitment. The first one is important since it is efficient to allocate the most capable employees to the most productive jobs. Work attachment is also central since any firm-specific knowledge disappears when a worker leaves a company.

Lazear and Rosen’s (1990) model has three periods. In the first period individuals are reviewed, before promotions or job shifts can take place. Upon being promoted employees accumulate (firm specific) knowledge in the second period; therefore the second period is characterized by lower productivity. Productivity increases when individuals are promoted to the third period and thus the cost of losing in the third period is higher than the second one. All employees work in periods 1 and 2 but remain
with the firm in the third period only if the wage in this period exceeds the value of the non-market alternative, the value obtained by staying at home. Lazear and Rosen (1990) assume that the key difference between men and women lies in this variable, implying that women have better non-market opportunities. In other words women are superior to men in the ability of non-market work, e.g. housework and childcare.

Competitive firms offer a job and pay that maximizes worker utility. When the non-market alternative in period three is the same for all employees, it is efficient to promote individuals with the highest abilities. In a situation where women have better non-market alternatives than men, it is no longer necessarily efficient to promote the one with the highest abilities. The reason for this is that employers take into account employees’ propensity to remain in the job. Lazear and Rosen (1990) further propose that women need to demonstrate higher skills than men in order to be promoted.

### 2.1.2. Sticky floor

Booth et al. (2003) introduce “sticky floors” as an alternative explanation to the few women observed in the highest corporate positions. The term is used to describe a situation where women are promoted to the same extent as men, however experience a slower wage growth upon promotion. There are two alternative explanations to the wage differences, either women have worse outside opportunities than men, or firms react differently to outside opportunities of men and women.

The model differentiates between initial wage increases associated with promotions and subsequent wage increases. The initial wage increase works as an incentive for employees to attain necessary human capital required for the job. After a promotion and an initial wage increase, employers no longer have incentives to offer wage increases unless there is a threat of an employer leaving the company for a more attractive offer (Booth et al. 2003).

The model consists of two periods. In the first period, employees have the option to participate in a corporate training program. At the start of the second period all employees who have participated in the training are considered to be equally productive and will be promoted. It is assumed that outside wage offers are public information. If outside offers exceed a worker’s current salary, a firm can either choose to match external salary or let a worker leave for a better offer. A firm will only match
an outside offer if the increased productivity due to training exceeds the extra cost of matching the outside offer (Booth et al. 2003).

Booth and al. (2003) identify two alternative “sticky floors” models. In the first one it is assumed that women have less favorable external opportunities compared to men. This is because women are less flexible than their male colleagues due to obligations at home, difficulties to commute long distances etc. If the current employer is aware of this inflexibility and that women are less likely to resign, then an employer can exploit the situation by offering lower wages to women (Smith et al. 2012). In the second model women are perceived to be less productive than men upon being promoted, which affects firm willingness to match outside offers made to female employees.

2.2. Promotion model

Bjerk’s (2008) promotion model is based on the theory of statistical discrimination and can be considered a synthesis of glass ceiling and sticky floor models since it is possible for both effects to coexist (Smith et al., 2012). The model focuses on how possible group differences, including (i) average skill level, (ii) signaling precision and (iii) signaling intensity, can lead to promotion inequality between groups. The inequality becomes more pronounced if more than one of the above differences exists simultaneously. These differences may lead to members of one group having a lower probability of reaching the top corporate positions than equally competent members belonging to another group. Although there is no direct discrimination in relation to promotion to the highest positions, there may still be unequal opportunities in relation to getting there.

2.2.1. Model

In Bjerk’s (2008) dynamic promotion model an employer gradually learns more about each worker’s abilities during his or her career. There are two types of employees: type-h employees who are high-skilled and type-l employees who are low-skilled. In this context “skill” refers to unobservable personal characteristics such as ambition, effort and productivity (Smith et al., 2012). Employees come from two observable groups, g, in this case men and women, g = m, w². In the model individuals can be recruited or promoted into three job levels: low-level jobs ($j = 0$), career-track jobs ($j = 1$), and

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² Bjerk’s model is not restricted to gender differences, but can also be used to analyze other types of groups e.g. race, minorities.
director level jobs \((j = 2)\). A worker needs to perform a number of tasks at each level before being eligible for a promotion to the next level. When a worker successfully completes a task, revenues equal to \(R_j > 0\) are generated for the firm. On the other hand, a failure of a task generates a loss of \(-L_j < 0\). Furthermore, it is assumed that \(L_j - L_{j-1} > R_j - R_{j-1} > 0\) for \(j = 1, 2\). In other words, losses due to failure are greater the higher the job level and, similarly, revenues associated with success are greater the higher the job level.

The proportion of type-h employees in a group \(g\), are denoted \(\alpha_g\). A type-h worker is successful at task with the probability of 1. A type-l worker, succeeds with the probability of \(1 - \pi_j\), however fails with the probability \(\pi_j\) where \(\pi_1 \geq \pi_2 > \pi_0 = 0\). This means that a type-l worker will always succeed in a job 0 where as there is a positive probability of failure in job 1 and 2. In other words, all employees can at minimum get and succeed at job 0. When employees reach level 1 or 2, employers can reveal worker type by observing success rates of completed tasks. The higher the job level, the higher the likelihood of type-l employees failing the tasks they have been assigned.

A central assumption of Bjerk’s (2008) model is that employers cannot directly observe employees’ skill type due to incomplete information. Firms can only observe employees’ previous success and failure history and the signals they send about their abilities. These signals, which can be either positive or negative, are emitted before entering the work force and in the low level jobs. The likelihood that employees, who belong to group \(g\), have an opportunity to signal their skills during a period, is equal to \(\phi_g \in (0, 1)\). Given that all employees are assumed to succeed in the job level 0 tasks, there is no other way for employers to learn about individuals’ abilities at this stage than by observing skill signals. Thus, signals are informative at this job level. Since type-h employees always emit positive signals about their abilities, given the opportunity, the probability of positive signaling equals 1. The probability of a type-l worker emitting a positive signal is equal to \(1 - \lambda_g < 1\). The larger \(\lambda_g\) is, the more accurate the signal. When a worker has reached job 1 or 2 it is assumed that employees no longer have separate opportunities to signal their abilities, instead promotion decisions are based on task success and failure history.
2.2.2. Group differences

In Bjerk’s model, two groups can differ in three different ways. First, average skill level may differ between groups. Smith et al. (2012) point out that employers may believe that there is a larger proportion of men of type-h than women of this type, \( \alpha_m > \alpha_f \). Stavad and Nielsen (2012) suggest that a possible reason for this is that employers evaluate accomplishments of men and women differently, and that there exists some statistical discrimination in the evaluation of women’s successful task completion. Another plausible reason could be that women loose human capital when being away from the labor market in connection to childbirth. Alternatively, the effort level that women put into work, may change after having had children, implying that women go from being a of type-h to type-l worker during their career. (Stavad and Nielsen, 2012)

Second, there may be differences in how well men and women signal their skills, more specifically how precisely these signals are emitted. Bjerk (2008) assumes that these signals (positive or negative) are more easily understood by supervisors coming from the same group, i.e. women are better at understanding and decoding signals from other women and men are better at understanding and decoding signals from other men. If it is assumed that most leaders who make promotion decisions are men and that men decode signals from male subordinates better than signals from female subordinates, then \( \lambda_m > \lambda_f \) (Smith et al., 2012). There may also be differences in what activities men and women participate in during their adolescence (e.g. football vs. dance) and male supervisors may have more difficulties assessing how skills learned in less familiar activities could translate to the work world. An alternative explanation is that formal and informal mentoring programs often take place between the same sex (Smith and al. 2012). Having more women in management teams or on the board of directors, may help in decoding signals and evaluating the task success of female employees.

Third, men and women may differ in their opportunities to signal their ability. Bjerk (2008) sets forward multiple reasons why men have more frequent opportunities to signal than women, \( \phi_m > \phi_f \). This can be because women on average have more career abruptions than men due to e.g. maternity leave. Another reason may be that high potential females socialize less with their superiors than the male counterparts, either because they are not part of the same networks or because they are not invited to informal social events e.g. golf outings. In addition women, according to Bjerk (2008), are less likely to actively participate and speak at meetings and conferences. Smith et al.
(2012), approach the signaling differences from a different angle, suggesting that women may signal less than men because they have fewer preferences for senior management positions than men. This could be explained by women having lower self-confidence in their abilities and/or that they alternatively because they may have lower ambitions for management tasks. These differences will be further examined in chapter three on “parameters”.

### 2.2.3. Equilibrium

Based on the above modeling, Bjerk (2008) sets up a perfect Bayesian equilibrium, which consists of:

- A set of pay arrangements and promotion rules offered by each firm that constitutes a Nash Equilibrium of a simultaneous move game, given each firms beliefs about worker type.

- Each firm’s beliefs about worker type are calculated by applying Bayes rule, whenever possible.

#### Wage and Job Assignment

To derive a Nash equilibrium, Bjerk (2008) first considers wage schedules and job assignment rules. All firms have equal access to information and therefore the same equilibrium beliefs regarding worker type. Given these beliefs, a unique Nash equilibrium is derived if employees are assigned jobs where they will have the highest projected revenue in the subsequent task and a wage that equals the expected revenue from a task. This constitutes a unique Nash equilibrium since no firm has an incentive to deviate: if a firm offers lower wage then employees would find other jobs with a higher wages and, similarly, if a firm offers employees’ wages that exceed the highest expected revenue from the completed tasks, then the firm will be making a loss. Note that there are no other strategies for companies to make profits, which ensures that firms will not deviate from equilibrium behavior. In other words, at a Nash equilibrium, firms will always have an expected profit of zero, otherwise some firms would have an incentive to deviate.

In the following, \( j'(p) \) indicate a job where the worker with the probability \( p \) is of type-h with the highest expected revenue. Similarly, \( w'(p) \) is equal to the expected productivity of the worker. Firm equilibrium behavior can be characterized by applying
some simple rules. If a firm believes a worker to be of type-h with the probability p,
then the expected revenue from the next task performed by this worker at job j to be
equal to:
\[ pR_j + (1 - p)[(1 - \pi_j)R_j - \pi_j L_j] \quad (1) \]

Given the expected revenue, \( p_j^* \) becomes the minimum probability that the worker has a
higher expected revenue for doing his or her next task at a job j than at job j-1. Thus \( p_j^* \)
is the minimum p that solves:
\[ pR_j + (1 - p)[(1 - \pi_j)R_j - \pi_j L_j] \geq pR_{j-1} + (1 - p)[(1 - \pi_{j-1})R_{j-1} - \pi_{j-1} L_{j-1}], \]

Or equivalently, that \( p_j^* \) is the minimum p that solves:
\[ \frac{p}{1 - p} \geq \frac{\pi_j L_j - \pi_{j-1} L_{j-1}}{R_j - R_{j-1}} - \frac{(1 - \pi_j)R_j - (1 - \pi_{j-1}) R_{j-1}}{R_j - R_{j-1}} \]

Given the previously mentioned assumption that \( L_j - L_{j-1} > R_j - R_{j-1} \), the above
equation implies that \( p_2^* > p_1^* \). This means that \( p_1^* \) and \( p_2^* \) are thresholds for promotions
based on the beliefs that employers have about employees. Thus, it is optimal firm
behavior to promote or recruit a worker from job 0 to job 1 if, and only if, a firm
believes that the probability that a given worker is type h, exceeds \( p_1^* \). Likewise, it is
optimal to promote or recruit for jobs 2 if, and only if, the firm believes that p exceeds \( p_2^* \).

Given equation (1) the equilibrium wage offered by firms to a worker they believe with
probability p to be a type-h worker who is optimally assigned job j, is as follows:
\[ w_j(p) = pR_j + (1 - p)[1 - \pi_j]R_j - \pi_j L_j \quad (2) \]

**Beliefs**

Next, focus shifts to firm beliefs about worker type. First, a firm’s equilibrium beliefs
regarding a member from group g, who has worked at low-level job 0 or alternatively
not worked at all is considered. Since all employees succeed at job 0 tasks, observing work performance at job 0 will not reveal any information about a worker’s skills.

\[ p_0^g(n) \] denotes a firm’s beliefs about the above worker, given that he/she as emitted \( n \) positive signals. Firms have no other information than group affiliation of an individual who has not yet had any signaling opportunities \( (n = 0) \), and therefore \( p_0^g(0) = \alpha_g \).

Bjerk (2008) shows that \( p_0^g(0) < p_1^* \), which indicates that firms never find it optimal to promote employees to job 1 or 2, when they can only observe the group to which the worker belongs. If employees, regardless of job level, send a negative signal they will be denoted type-l employees for the rest of their careers. For a group \( g \) worker who has not worked at all or only worked at a job 0, but has had signaling opportunities and emitted \( n \) positive signals, then firms’ equilibrium beliefs (according to Bayes rule) will be equal to

\[
p_0^g(n) = \frac{1}{\alpha + (1 - \alpha_g - (1 - \lambda_g))}
\]

which can be re-written as

\[
p_0^g(n) = \frac{1}{1 + \frac{\alpha - \alpha_g}{(1 - \alpha_g)(1 - \lambda_g)}} \tag{3}
\]

In order to be promoted from job 0 to job 1 a worker needs to send a minimum amount of positive signals, \( n_g^* \), so that

\[
p_0^g(n) = p_1^*
\]

The model considers these to be promotion requirements 1. When \( p_2^g > p_1^* \), it will hold that \( n_g^* \) will be such that \( p_0^g(n_g^*) < p_2^* \), in other words individuals will not be hired/promoted into a job 2 before starting at a job 1.

A worker who fails the first task at job 1, is considered a type-l worker, and will go back to job level 0, either through demotion or dismissal. On the other hand, if a worker successfully completes the first task, the worker is believed to be of type-h with probability \( p_1(1) \). Note that the probability does not depend on which group a worker belongs to. This means that when a worker has been promoted to job level 1, the only thing that matters for career advancement is to successfully complete tasks. After a worker has successfully completed \( s_1 \) tasks at job 1, the firm believes that the worker is of type-h with probability \( p_1(s_1) \), where
In order to be promoted from level 1 to level 2 a worker needs to complete a minimum number of successful tasks, \( s^* \), so that

\[
p_1(s_1) = \frac{1}{1 + \frac{1-p_1^2(1-\pi_1)s_1}{p_1}}
\]

In a similar way, equilibrium beliefs can be constructed for employees at job 2 as for employees at job 1 shown above. Again, all employees are regarded to have the same probability of being type-h employees, no matter of group and skill signaling history. This means that the number of successful tasks, \( s_g \), is the only parameter that affects firm beliefs about employees at job 1, thus implying that there is no statistical discrimination in promotions to job 2.

If a worker is promoted to job 2 and fails a task, then he/she will be demoted to level 0. If the worker succeeds, then after \( s_2 \) completed tasks at this level the firm will believe that that the worker is of type-h with a probability \( p_2(s_2) \), where

\[
p_2(s_2) = \frac{1}{1 + \frac{1-p_2^2(1-\pi_2)s_2}{p_2} - \frac{1\pi_2}{p_2} - \frac{1\pi_2}{p_2}}
\]

**Equilibrium Wage**

The above equilibrium derived by Bjerk (2008) such that employees from group \( g \) begin with a job 0 getting paid

\[
w_0 = R_0
\]

with a probability \( \phi_g \) of a signaling opportunity in each period. Once a worker has emitted \( n_g^* \) positive signals, he or she will be promoted to job 1. Once in job 1, after having completed \( s_1 \) job 1 tasks successfully, the worker will be paid

\[
w_1^*(p_1(s_1)) = p_1(s_1)R_1 + (1 - p_1(s_1))[1 - \pi_j]R_j - \pi_j L_j
\]

Finally, when employees have completed \( s^* \) job 1 tasks successfully, the worker will be hired/promoted to job 2. Similarly as in job 1, once in job 2 after having completed \( s_2 \) job 2 tasks successfully, the worker will be paid
\[
\begin{align*}
  w^*_2(p_2(s_2)) &= p_2(s_2)R_2 + (1 - p_2(s_2))[1 - \pi_j]R_j - \pi_jL_j \tag{6}
\end{align*}
\]

### 2.2.4. Model implications

Bjerk (2008) presents the main implications from the derived equilibrium. Bjerk argues that discrimination in equilibrium will only rise in promotion to job 1. From equation 5 one can see that if \( \alpha_m > \alpha_f \) and/or \( \lambda_m > \lambda_f \), then \( p^m_0(n) > p^f_0(n) \) for any given \( n \). This means that for a given number of signals, firms believe that male employees in job level 0, are more likely to be type-h employees. This could either be because there are more men of type-h in low-level jobs, or it may be because employers find it easier to decode signals from men than from women in job 0. Thus, it can also be stated that if \( \alpha_m > \alpha_f \) and/or \( \lambda_m > \lambda_f \) then \( n^*_m < n^*_f \). This means that women must send more positive signals than men in order to be employed or promoted to career-track jobs. If women have lower signaling intensity, meaning they have fewer opportunities to signal \( (\phi_m > \phi_f) \), then the effect is strengthened, resulting in women on average being older than men when they are promoted to career track jobs.

Bjerk (2008) points out that there will be no wage discrimination in equilibrium, even if two groups differ in their average skill, signaling precision and/or signaling opportunity (e.g. \( \alpha_m > \alpha_f, \lambda_m > \lambda_f \) and/or \( \phi_m > \phi_f \)). This can be seen from equations 4-6 considering that these do not depend on the above parameters or a employees group affiliation. In the model, the wage for a given job level is a function solely based on successfully completed tasks.

### 2.2.5. Extended model with focus on top management

Smith et al. (2012) base their promotion model on Bjerk’s (2008) model but adapt it to explain promotions into the highest corporate positions. It is assumed that the career track for top executives has three stages: a potential top executive can be promoted to Vice President (VP), and further to Chief Executive Officer (CEO). Smith et al (2012) argue that Bjerk’s model is not fully applicable when focusing on promotions to top positions. This is because decision makers and the decision process of who to hire into top positions often differ from the hiring process lower down in the hierarchy. In an election of a new CEO it is the chairman of the board and board of directors, often assisted by professional headhunter or consultants, who make the decision. Smith et al (2012) also point out that the decision process may function more like tournament...
between a number of nominees where only one “winner”, the candidate who has performed best and supplied the highest level of effort, gets the CEO position. Thus, in difference to Bjerk’s model there is no promotion standard, rather the best candidate will be promoted to CEO. According to Smith et al. (2012) the above may lead to a gender gap in promotion chances into CEO positions, which favors men. The authors present three broad reasons for this possible gender gap:

(i) In case the decision makers (board of directors) are risk-averse, they may be less likely to choose candidates from a minority group to fill a CEO position. Decision makers may also be more external to the firm, thus basing their decisions on gender-stereotypical attitudes and biased evaluations instead of successful task records and relevant information. This differs from the promotion process in lower levels, which is more often handled by an internal agent who can more easily observe actual performance.

(ii) If male decision makers or head-hunters have old-fashioned beliefs regarding female behavior and effort then these beliefs may affect their performance evaluation of women, implying that statistical discrimination could be present. Also, if there are gender differences in VP’s responsibility areas, then it could be that typical female tasks (e.g. human resource management) are less valued than typical male tasks (e.g. finance tasks)

(iii) Female VP’s may find CEO positions to be unattractive. Women could have fewer preferences for the responsibility that comes with a CEO position, or they could have less confidence in their own abilities or be less competition driven than their male colleagues.
3 PARAMETERS

As stated in the introduction it is possible to observe promotion disparities between men and women in Finland. In this chapter, different parameters that contribute to explaining these promotion disparities are presented. Parameters are grouped according to the three categories in Bjerk’s promotion model (see Figure 1 below). Focus will be on why there could be a lower proportion of high skilled women than men, $\alpha_m > \alpha_f$, why signaling precision could be lower for women than men, $\lambda_m > \lambda_f$, and last, why signaling intensity could be lower for women than men, $\phi_m > \phi_f$.

Figure 1 Parameters organized according to the three categories in Bjerk’s promotion model

3.1. Average skills

Factors that may affect average skill level of men and women will be explained and discussed in the next chapter. The average skill level is denoted $\alpha$.

3.1.1. Education and work orientation

The educational background and work orientation have an impact on individuals’ promotion chances. A report by Finland Chamber of Commerce (2011), covering all
listed companies on the Helsinki Stock Exchange, finds that the majority of CEO’s have either a technical (42.7%) or business (45.2%) background. It is likely that the gender distribution of CEO’s is impacted by the fact that a majority of engineering students are male e.g. in 2012, only 27 % of admitted Bachelor level engineering students at Aalto University were female (Aalto, 2013).

According to a report by the Confederation of Finnish Industries (2013) women differ from men in both their educational choices and work orientation in different industries. Within different sectors and work places women also end up in different tasks than men. These differences are clearly reflected in hiring disparities and the gender wage gap. In 2012, a majority of men (82%) worked in the private sector where as only around half of women (56%) did. Women are best represented in the financial sector and health care, the least in construction and transportation. The highest proportion of female managers can be observed in industries and branches in which women are otherwise well represented. Differences within industries are also observed. In male-dominated industries, women work mainly in office- or administrational tasks and in the female-dominated health-care and education sectors men are more often in management and supervisory positions. Additionally, there are gender differences in management and supervisory positions; men work more often than women in operative management, women on the other hand work more often in personnel management and communications. The report states that in order to increase the amount of women in senior management, the number of women in line management and operational tasks should increase. (Elinkeinoelämän keskusliitto, 2013)

The above is also confirmed in a study by Smith at al. (2012), which shows that executive managers in HR, IT and R&D have a significantly lower probability of being promoted to CEO’s than CFO’s, Sales and Vice CEO’s in Denmark. In Finnish listed companies, women are better represented in staff management positions than line positions, e.g. women held a third of the HR executive positions in listed companies in 2011 whereas only 3 % of women held line positions (Finland Chamber of Commerce, 2011). This indicates that women more often choose to make careers in areas with less of a chance to get to the top, whereas men choose areas with higher chances of promotions to the top level. Thus, there are on average fewer women with the right skills in terms of work orientation and educational background to make it to the top management positions, implying that $a_m > a_f$. 


3.1.2. Gender stereotypes

Since gender stereotypes have the effect that men and women are perceived to differ in their general characteristics, stereotypical beliefs will also have an impact on how men and women are perceived as managers. Schein (1973) sets forward the “Think manager – Think Male” syndrome, which suggests that there is a close relationship between gender role stereotypes and the characteristics associated with a successful manager. Schein (1973) finds that “successful middle managers are perceived to possess characteristics, attitudes and temperaments more commonly ascribed to men in general than women in general”. Traits stereotypically associated with men include aggressiveness, strength, independence, and decisiveness. Women on the other hand are perceived as kind, helpful, empathic and inclusive, which are features not associated with leadership (Wajcman 1996, Rutherford 2001). According to Wajcman (1996) negative perceptions about female leadership exist, which are widely spread, deep-rooted and difficult to change. Furthermore, stereotypically women are not perceived to be as interested in positions of power as men (Rutherford, 2001). Considering that the features associated with a successful manager are stereotypically masculine and the negative perceptions about female leadership, then an employer with asymmetric information about employee abilities may believe that women are less capable to hold positions of power, solely based on gender (Stavard and Nielsen, 2012). If employers evaluate women on average to be less skilled managers than men, then $\alpha_m > \alpha_f$.

Vanhala and Pesonen (2008) studied Finnish Middle managers’ perceptions about female leadership by focusing on beliefs regarding female discrimination and male leadership superiority among other factors. Results show that neither men nor women believe that “the male way of leading is more efficient”. Interestingly, half of men and three out of four women agreed to the statement “What hinders women from getting to the top positions is that women rather stay in so called specialist positions than get line management experience”. Women also tended to agree more than men with the statement “women are less willing to take responsibility” and that “women lack the courage to take on challenging tasks”. The results would imply that female middle managers tend to have more stereotypical beliefs about women’s will to advance. This is somewhat surprising when comparing to the US where especially women’s view on women and leadership is shifting towards a more gender-neutral direction (Schein, 2001).
3.1.3. Societal structure

Finland, together with the other Nordic countries, is considered a forerunner in family friendly policies (Gupta et al. 2008). The conflicts between motherhood and work life have decreased with the introduction of generous leave and childcare systems. This has had a positive effect on female labor participation but it may also have a negative boomerang effect on women in top management (Gupta et al. 2008). When women are away from the labor force for longer periods of time due to maternity leave, it may have a damaging effect on their human capital. Nielsen et al. (2004) find that Danish women taking 6 to 12 months of maternity leave are temporarily punished for the interruption due to depreciation of human capital. This depreciation in human capital partially explain why women on average could be considered less skilled compared to men, again implying that $a_m > a_f$. Labor interruptions may also impact women’s possibilities to signal their abilities, which will be covered in section 3.3.2 on signaling intensity.

3.1.4. Summary of skills

The above parameters explain why employers may perceive that men on average have higher skills than women. However, when looking at educational attainment in general there seems to be no difference in skill level between men and women in Finland. As a matter of fact women today are higher educated than men and make up 54% of university students (Tilastokeskus, 2012). The gender difference does not lie in the educational level but rather in the field of education and work orientation, where variability is large among men and women. Women have less experience than men from line management and operational tasks, which is important for reaching senior management positions. The above gender differences are a partial reason for so few women being found at the top.

Vanhala and Pesonen (2008) found that Finnish middle managers do not agree that the male way of leading is more efficient, implying that stereotypic beliefs regarding female leadership being inferior to male leadership are not that profound at least among middle managers. Setting aside that women may have less line and operational management experience than men, the target group of the empirical study consists of managers with a technical and business background, and thus there should in principle be no difference in skill level between men and women. Additionally, since middle
managers do not seem to believe that the female way of leading is inferior to the male way of leading; differences in skill level will not be the focus in the empirical part.

3.2. Signaling precision

This chapter concentrates on whether mentoring and role models, communication differences and differences in the activities men and women participate in during their upbringing can have an effect on how precisely men and women signal their abilities to superiors. Signaling precision is denoted $\lambda$.

3.2.1. Communication

Studies show that men and women differ in communication styles (Sheridan 2007, Tannen 1994). This may explain why career patterns of men and women differ (Sheridan 2007). According to Tannen (1994) women communicate in a way that establishes connections, whereas for men communication is a means to preserve independence and establish status. Sheridan (2007) finds that men are more prone to interrupt, ask questions, talk in meetings and furthermore more comfortable with public speaking than women. Women on the other hand are considered to be better listeners, less confident and tend to downplay their accomplishments more often than men. These gender differences in communication can lead to men and women talking past each other, which hinders communication and limits the potential for cooperation (Sheridan, 2007). Sheridan (2007) notes that women are often judged to be less confident or softer because their way of speaking. Women’s signals are therefore likely to be perceived as less assertive, putting women in a disadvantaged position when promotion decisions are made. In other words, the signals sent by women are not as accurate as those sent by men when decoded by other men, resulting in $\lambda_m > \lambda_f$.

Women can also communicate in a way typically considered masculine. Yet, this can lead to women being misunderstood and instead considered aggressive and not feminine enough (Eagly and Johannesen-Schmidt, 2001) Similarly, Babcock et al, (2003) find that men who assertively peruse their own ambitions and promote their own interests are considered ambitious, whereas women doing the same may be considered pushy. This indicates that the same type of behavior in men and women are perceived differently.
3.2.2. Upbringing and activities

Boys and girls take part in different activities throughout their adolescence. A report on Finnish children’s exercising habits (Kansallinen Liikuntatutkimus, 2010) shows significant differences in what sports boys and girls practice. According to the report, girls are more likely to practice gymnastics, figure skating and horseback riding. Boys on the other hand, more often choose team sports such as football, ice hockey and floor ball. Furthermore, girls tend to focus more on individual sports compared to boys who are more likely to choose team sports. Thus boys and girls can be considered to differ in the skills they learn from practicing these sports. According to Bjerk (2008) male employers may have difficulties assessing how the skills learned in less familiar sports (e.g. figure skating and gymnastics) translate to employees’ professional life. This again may lead to women’s signals being decoded less accurately than men’s signals by male employers in charge of promotions, implying that $\lambda_m > \lambda_f$.

3.2.3. Mentoring and role models

According to Athey et al. (2000) the ability of a lower level employee is increased by mentoring. More precisely, an employee will gain more benefits from mentoring by upper-level employees that are of the same gender. The basic idea is that female mentors may increase the opportunities for low-level female employees to signal their skills. Considering that in most organizations there are more men than women in upper management, the implication is that women would have less opportunities to be mentored by women i.e. have lower skill signaling opportunities, so that $\lambda_m > \lambda_f$.

In a survey by Catalyst (2010), targeting 4000 MBA alumni from Asia, Canada, Europe and America, men were found to have greater benefits from mentoring because their mentors were higher placed in the organization than the mentors of women. An almost equal amount of men and women had mentors (26% of women versus 28% of men), nonetheless men were more often promoted and had a higher wage, even when taking factors such as prior work experience, starting level, industry and region into account. The results somewhat differ from the theory set forward by Athey et al. (2000) since position rather than gender impacted women’s benefit gains from mentoring: “This is not simply because men held more senior positions than women, rather men’s mentors were more senior even after controlling for their own job level” (Catalyst, 2010). Thus, the results imply that through mentor relationships men have better possibilities to accurately transmit signals higher up in the organization than women, so that $\lambda_m > \lambda_f$. 
3.2.4. Summary of signaling precision

Smith et al (2012) tested whether possible differences in signaling precision, such as the ones mentioned above, may impact women's promotion opportunities. This was done by studying whether companies with a female CEO or chairman of the board had a positive effect on women being promoted into senior executive positions, the idea being that women could more precisely decode other women's signals. Smith et al (2012) found no positive correlation between whether a company was led by a woman and women's chances to be promoted into CEO's. As a consequence, the focus in the empirical part will not be in the differences in signaling precision between men and women.

Nonetheless, Babcock and Laschever (2003) find that women respond strongly to mentorship, in terms of increased confidence and becoming more likely to promote their accomplishments among other factors. This in turn should have the effect that women take more advantage of opportunities to signal their skills. Signaling intensity will be covered in the following chapter.

3.3. Signaling intensity

The factors affecting men's and women's signaling intensity will be described and discussed in this chapter. These include networking, societal structure, time allocation, norms and preferences. Signaling intensity is denoted $\phi$.

3.3.1. Networking

According to Saloner (1985) a formal selection process is only a part of the hiring process of a new worker. There is also an informal mechanism where personal opinions are obtained from a third party, which have an impact on the evaluation process and play an important role in the selection process. The information obtained may partially be based on objective information about an applicant, such as exam results, but can also be based on the employer’s subjective assessment of applicant’s motivation, ability and likelihood of success. In many cases these personal opinions are repeatedly obtained from the same group of people acting as an informal network. (Saloner 1985)

Informal groups and networks are important for employees' promotion possibilities. However, women often have limited access or are denied access from these networks (Linehan, 2001). Networks consist of individuals who are in powerful positions in
organizations, namely men and thus often called “old-boy” networks. As these networks have often developed male customs and traditions, it may be difficult for women to get into these networks. Linehan (2001) interviewed 50 women in senior management, who expressed that so-called male bonding exists. The unofficial bonding takes place after work hours at sporting events, clubs and bars, which women felt excluded from. The senior managers also stated that they do not have as much time to network after work hours as men, because of family responsibilities. Overall, managers’ perceived that useful contacts are made and business was discussed when male managers network informally, which in turn was favorable for their careers. Since women, most often, are excluded from these informal situations they do not have the same opportunities to build informal connections and be noticed i.e. signal their abilities to people who may impact their career advancement, hence $\phi_m > \phi_f$.

3.3.2. Societal structure

The maternity leave period is long and childcare coverage is relatively high in the Nordic countries when comparing to other OECD countries (Gupta et al, 2008). This has made it possible for Nordic women to be out of the labor force for longer periods in connection to childbirth. The Finnish leave period is approximately 12 months; the first 4 months (105 working days) for the mother, then around 6 months (158 working days) of parental leave and just over 2 months (54 days) of paternity leave (KELA, 2013). The paternity leave has gradually increased from when it was first introduced in 1973. Although the parental leave may in principal be taken by either parent or be divided, it is usually the mother who takes it. A quarter of fathers do not take any leave at all and it is overall rare that men take paternity leave (Hämäläinen and Takala, 2007). In 2010, fathers’ share of the total leave period was around 7%. The reasons why women tend to take the total allowable leave period, has partly to do with the ideals people have regarding good mother –and fatherhood (see more on ideals in section 3.3.3 on norms) and because men on average earn higher wages than women. When the replacement rate of the leave allowance is less than one hundred percent, a greater income loss occurs when a parent who earns more stays at home. In addition, the replacement rate of allowance decreases after income increases above a certain level. Thus there are economic incentives for the parent who earns more, usually the father, not to take parental leave (Hämäläinen and Takala, 2007).
When the standard leave period ends the child is around 9 months old. After this childcare at home (family leave) is subsidized until the child turns 3, which in Finland is a popular way to organize care of small children. Nearly 60% of 1-year-olds and 35-40% of children aged 2 are cared for at home (Miettinen, 2012). Miettinen (2012) reviewed several studies on preferences for home care and found that home care is the most popular option for 1-2 year olds. The popularity of home care can also be seen when looking at the proportion of 3-year-olds in publicly offered day care, which is significantly lower in Finland than in other Nordic countries. In 2009 under a third of 1-2 year olds in Finland were in day care while the respective amount in other Nordic countries was almost half (ibid.). Long leaves and time taken off the labor market are mainly concentrated on women, which is why family leave weakens women's position on the labor market. Further, maternity leave has been found to have a negative effect on women's promotion possibilities (see e.g. Smith et al., 2012 and Bertrand et al., 2010). Since women take advantage of the generous leave system and are away from the labor market for longer periods they also have fewer opportunities to signal their skills, resulting in $\phi_m > \phi_f$. This implies that the parental leave schemes create a so-called boomerang effect for women on the labor market, leading to women being promoted to top positions less than men. (Gupta et al, 2008)

Although Finns are offered generous parental leave schemes and publicly supported childcare it can still be difficult to combine everyday living with small children and a demanding career. Among other things, as many of the publicly offered day cares close rather early, the parent in charge of picking up the child must leave work earlier than the one without the responsibility. This can be problematic in a household where both parents have a career that requires more than 37 hours of work a week, which is often the case for employees who aspire to top management positions. As can be seen in the following section on time allocation (3.3.2) women are most often responsible for picking children from day care and school, have the main responsibility of taking care of sick children and further take on a majority of house care duties. This suggests that women would have fewer opportunities to signal their abilities i.e. $\phi_m > \phi_f$. A solution to this, which would increase women's time allocation on market work, is to outsource some of the childcare and household duties e.g. hiring nannies and housekeepers and eating out more. Relying on outside help in Finland is, however, expensive in comparison to other OECD countries, excluding the Nordics, due to the high tax burden and high minimum wages. This means that many families cannot afford to outsource these tasks. On one hand the Finnish welfare state has positive effects on women's
employment; on the other hand it seems to create restrictions on women’s opportunities to signal their skills so that they are not promoted to the same extent as men.

### 3.3.3. Time allocation

The distribution of market and non-market work between men and women is of interest since the number of hours spent in market work has an impact on both salary and promotion opportunities. In Finland, the total amount of working hours is somewhat greater for women than for men who have children; 10.48 (h.min) for women, respectively 10.21 (h.min) for men (Ylikännö 2011). When dividing the number between market and non-market work, it can be seen from the table below that men spend almost an hour more on market work than women. Women on the other hand do more than an hour more non-market work than men. Non-market work includes both ordinary housework and childcare. Couples who do not have children work close to equal hours (men 9.31, women 9.21) however men do almost an hour (52min) more market work than women, while women on the other hand do more non-market work than men.

Table 1 Working men and women’s time allocation divided into paid work, domestic work and free-time (h.min/24 h)

<table>
<thead>
<tr>
<th></th>
<th>Market work</th>
<th>Non-market work</th>
<th>Total work</th>
<th>Free-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>8.20</td>
<td>2.01</td>
<td>10.21</td>
<td>3.24</td>
</tr>
<tr>
<td>Women</td>
<td>7.24</td>
<td>3.24</td>
<td>10.48</td>
<td>2.16</td>
</tr>
</tbody>
</table>

*The figures represent Finns who are cohabiting and whose youngest child is 0-6 years-old

Another difference is that women take on more time sensitive non-market work, such as cooking and childcare. Men are more likely to take on domestic work, which can be done at any time (e.g. home repairs and yard work). According to an Equality Barometer published by the Ministry of Social Affairs and Health (Kiianmaa, 2012) the mothers’ share of childcare responsibility is about 40%, for men the respective share is 10%. The same can be observed in taking and picking up children up from childcare and school, where fathers’ share is around 17 %. Mothers also have a larger responsibility in taking care of sick children: in 50% of the cases the mother takes the principal responsibility and 40% of the cases the responsibility is shared. Since women do the majority of time sensitive non-market work, they are less flexible in their market work and therefore have fewer opportunities to signal their skills, i.e. $\phi_m > \phi_f$. 
3.3.4. Norms

Social norms in a society may unknowingly have an impact on people’s behavior and promotion possibilities (Stavard and Nielsen, 2012). The European Commission has conducted two reports, one on inequality (Eurobarometer 2010) and the other on women in decision-making positions (Eurobarometer 2012), which both cover member states’ opinions about various topic related issues. Results from the first report (Eurobarometer, 2010) suggest that Finland may not be as equal as generally thought as 59% of respondents state that gender inequality is widespread. Likewise 49% of respondents are of the opinion that stereotyping occurs in the workplace. This indicates that there exists a certain degree of inequality between men and women, and that this inequality is reflected in stereotypical actions in the workplace. Another interesting feature is that Finland shows the third highest percentage (50%) of respondents opposing to “men mainly looking after children and the home”. Additionally, 47% of Finns agree with the statement “A mother must put looking after her young child ahead of her career”. Results suggest that Finns to some extent show traditional gender stereotypical views that women should stay at home and take the role of caregivers, while men are assigned the role of breadwinners.

These norms can influence the choices made by men and women regarding their family and their career. As the Eurobarometer (2010) shows, there is a widespread attitude that women should take the caregiving role and prioritize children. This may pressure women to prioritize family more and lead to women having fewer opportunities to signal than men, so that $\phi_m > \phi_f$.

3.3.5. Preferences

According to preference theory set forward by Hakim (2003), lifestyle choices of individuals have an impact on the proportion of women in management positions. Traditionally women have been considered to have homogenous preferences towards family, however, preference theory states that women’s preferences regarding family work balance are heterogeneous; some women prioritize family, others work and some are in between. Men on the other hand are more homogenous in their preferences; most men value work and competitive results outside the home higher than family related work. These differences are confirmed in a study by Stavard and Nielsen (2012), which concentrated on Danish university students’ preferences regarding career and family. The results show that female students tend to display more preferences towards
family than male students. The study also found that women’s preferences tend to shift towards family after having had children, a tendency not found in men. If women in general prioritize non-market work higher, and take longer periods off the work force in connection to childbirth, women are not able to signal their skills as much as men. This would mean that women would not be promoted as often as their male counterparts, suggesting that $\phi_m > \phi_f$

There may also be gender differences in preferences in other work related areas, such as the desire to compete. Niederle and Vesterlund (2007) show that men are more than twice as likely to engage in a tournament type competition than women when given the choice, even though men and women have equal abilities. The observed difference can be either because women dislike competition more than men or because women are less self-confident in their abilities than men. Smith et al (2012) assume that the promotion to top level is decided by a tournament with only one winner. If women “shy away” from competition, i.e. show different behavior with regards to applying and competing for the top positions, then the observed gender gap in promotions may be increased.

Similarly, Babcock and Laschever (2003) suggest women’s inferior negotiation skills but also will to negotiate may stand in the way of promotions: “women do not often get what they want and deserve because they don’t ask for it”. Furthermore, women are less likely than men to promote their own interest and negotiate salary increases and promotions (Babcock and Laschever, 2003). Many employees are responsible for negotiating their wages and their responsibilities themselves, thus negotiating is a way to signal that a worker believes in his or her own skills. Women are therefore in a disadvantaged position if they are worse at negotiating or alternatively are less interested in top positions, meaning that they signal less than their male colleagues, i.e. $\phi_m > \phi_f$.

3.3.6. **Summary of signaling intensity**

In Finland, women spend more time with their children than men and take off long periods from the labor market in connection to childbirth. This is thought to be partly due to the way the Finnish society is structured and the norms Finns live by. In an equal part, the favorable leave conditions and a lesser desire to compete in the labor market can lead to women preferring to prioritize family and stay home with children longer, which leads to women on average having fewer opportunities to signal their
skills. According to Stavard and Nielsen (2012) social structure, norms and preferences are closely linked, which has and a direct impact on the low proportion of women in top management. These group differences will be the focus of the empirical part, with an exception for the section of networking, which due to resource limitations is not within the scope of the study. However, it is important to acknowledge that networking and differences in access to networks, may equal to differences in promotion opportunities for men and women.
4 HYPOTHESES

Based on the above chapter on “parameters” the assumptions are that societal structure, norms, preferences and time allocation may explain the differences in signaling intensity between men and women. Thus, gender differences observed in these parameters help to explain that women are being promoted to a lesser extent than men. Three broad hypotheses are constructed below focusing on different aspects that may explain gender differences in signaling intensity: The first one concentrates on managers’ career aspirations and preferences, the second one on gender balancing of family and work and the third one on to what extent middle managers and Finns have stereotypical beliefs regarding women’s career interests and whether there are age dependent differences among middle managers’ beliefs.

4.1. Hypothesis 1 – Career ambition and preferences

*H1: Men and women in middle management do not differ in their preferences for career advancement. However, men strive higher, are more confident in their career prospects and skills and have better prerequisites for career advancement than women.*

1. Men and women in middle management do not differ in their desire for career advancement

2. Men in middle management strive for a higher organizational position than women in middle management

3. Men in middle management have more confidence in their career prospects and that that they have the required skills for career advancement compared to women

4. Men in middle management plan their career more and take a more active approach to career advancement

5. Men in middle management are more likely to get promotion offers and accept them than women in middle management

The inspiration for hypothesis 1.1 and 1.2 stem from Hudson study (2008), focusing on middle managers’ career aspirations in the US. The study reported that a similar
percentage of male and female middle managers aspired to senior level positions (79% and 82%). No similar type of comparison seems to have been done for Finnish middle managers. However, Vanhala (2011) finds, in a study on Finnish female middle manager’s career orientations, that around a third aspired for top management positions which is a considerably lower proportion than observed by Hudson. The Hudson study also found that men on average aim to achieve a higher corporate position than women, which is the inspiration for the hypothesis 1.2. When asked what positions middle managers want to achieve, 31% of men name president or C-suite positions (e.g. CEO, COO, CFO) while the respective amount of women naming these positions is 22%. The most common response for men is vice president while women aim lower, for women the most common answer is “director”.

Hypothesis 1.3 and 1.4 mainly draw inspiration from a study by Europe’s Institute of Leadership & Management (Flynn et al., 2011), which revealed that women in leadership roles are less confident and more cautious than men. The findings, based on interviews and 360 reports, stated that 70% of males had a high or very high self-confidence, compared to 50% of the surveyed women. Further, half of the surveyed women had feelings of self-doubt regarding their performance and career, whereas 31% of men reported the same. This lack of confidence resulted in female managers applying less for promotions than men: 14% of women would apply for a position despite not fully meeting the job description, compared to 20% of men.

It seems that no Finnish study has been done concerning hypothesis, 1.4., yet a common belief is that women are offered / apply for promotions less than men and are more likely to decline promotions. In an article by Talouselämä (2013), the most influential Finnish businesswomen were asked about their opinions and perceptions about women’s career development. A third of the surveyed stated that that the low proportion of women observed in leadership roles is because women themselves decline promotion offers. Hypothesis 1.5 aims to test this belief.

4.2. Hypothesis 2 – Family and work

*Having children does not permanently alter women’s career goals more than it does for men; however it slows down women’s career advancement more. Achieving family and work balance requires more compromises and time allocation from women than for men in middle management. These actions are considered to*
represent women’s preferences, thus women are perceived to have more preferences for raising a family

1. Having children does not permanently alter the career goals of female middle managers more than male middle managers

2. Women in middle management are more likely to make career goal compromises than men in middle management to balance family and work

3. Having children temporarily slows down female middle managers’ career advancement more than male middle managers career, and for women this slowdown is more often involuntary

4. Women in middle management allocate more time to childcare and housework than men in middle management

Finland is considered a forerunner in family friendly policies and the conflicts between motherhood and work life have decreased with the introduction of generous leave and childcare schemes (Gupta et al., 2008). Both the female employment rate and nativity is high by European standards, implying that women in Finland have good prerequisites for career making. Thus, having children should not permanently alter women’s career goals. This is the focus of the first sub-hypothesis 1.1.

Although the general belief is that having children does not permanently alter either gender’s career goals, based on the literature review, children seem to impact the careers of men and women unevenly. Sub-hypothesis 1.2, 1.3 and 1.4 look focus on how having children impact women’s careers differently, either voluntarily or involuntarily, than the careers of men. Women take the majority of parental leave and a larger responsibility for childcare and household duties, particularly time inflexible work such as taking children to school (Miettinen, 2008 and 2012). Thus, the assumption is that women more often face a career-slowdown when children are small and subsequently compromise on their career targets in order to reach work and family balance. In the third sub-hypothesis it is of interest to examine whether the career slow-down has been involuntary for women, which would suggest that statistical discrimination would be present. The forth sub-hypothesis looks into how managers divide domestic work with their partners.
4.3. Hypothesis 3 – Norms and beliefs

Middle managers have traditional beliefs regarding women’s roles and female leadership. A difference in beliefs regarding women’s roles can be observed between the younger and older generation of middle managers. The younger generation is less conservative in their beliefs regarding women’s career interests and opportunities.

1. The older generation of middle managers is more likely to believe that women are less interested in positions of responsibility and less willing to fight for their career than men than the younger generation.

2. The older generation of middle managers is more likely to believe that women have less freedom because of their family responsibilities, the business community is dominated by men who do not have sufficient confidence in women and that women do not always have the necessary qualities and skills to fill positions of responsibility than the younger generation.

3. The older generation of middle managers more often think that it is normal that men work more outside the home and participate less in domestic work than women than the younger generation.

On one hand this hypothesis aims to examine how widespread stereotypical beliefs are. One the other hand it aims to test whether an attitude difference regarding women’s roles and female leadership can be observed among managers under the age of 35 (=younger generation of middle managers) and above 50 (=older generation of middle managers). The latter is not informative in regards to why there are currently few women in top positions; however it may give interesting insights about the future development of attitudes and beliefs of female leadership and roles.

Much of the inspiration for the third hypothesis originates from two European studies that attempt to uncover Europeans’ attitudes about equality, Eurobarometer (2010) and Eurobarometer (2012). The studies show that in Finland somewhat stereotypical beliefs regarding women’s roles, career interests and opportunities can be detected. On a European level, the older generation (55+) believes equality is more widespread than the younger generation (25-39). The younger generation also believes to a larger extent that equality is less widespread today than it was 10 years ago. When asked about women’s career interests, the younger generations of Europeans are less likely to believe that women are not as interested as men in positions of responsibility. The
above would imply that the younger generation of Europeans is less conservative in their beliefs about women’s career interests and opportunities than the older generation. It is said that with each new generation comes change, and therefore the hypothesis aims to test whether this holds for the younger generation of middle managers. What needs to be kept in mind is that younger managers beliefs can change when they become older, however next reasons why the younger generation of middle managers can be assumed to be less conservative in their beliefs regarding women’s career interests and opportunities are presented.

In Finland, factors such as day care availability, the length and the compensation rate of leave periods have had a significant impact on women’s employment and career advancement opportunities (Confederation of Finnish Industries, 2013). A “subjective right to child care” was introduced in 1985, giving parents the right to choose whether their children were cared for at home, while collecting a home care allowance, or at a child care center, which is heavily subsidized (Miettinen 2012). The family leave compensation rate has increased and paternity leave has also been prolonged in the past decade (ibid.). The above changes have given the younger generation better prerequisites to balance their family and work life while pursuing their careers. Further, the changes have created better circumstances for women to pursue their careers, which ought to translate into higher career ambitions for women. Thus, it is assumed that these changes are also reflected in attitudes regarding how women’s career interests, opportunities and roles are perceived.
5 METHODOLOGY

This chapter discusses the methodology for the empirical research. Reasoning for the choice of target group is presented as well as how the questionnaire is designed. This is followed by a description of the respondents and how the data is processed.

5.1. Choice of research method: Questionnaire

Since the objective of the study is to compare career related decisions and preferences between middle managers, a quantitative method was chosen for the purpose. The benefit of a quantitative method is that it is generalizable, meaning that it is possible to say something about a larger context by studying a meaning that by studying a smaller sample (Saunders et al., 2007). Additionally, this method is easily testable and can be repeated by others getting the same results. Previous studies within the field, e.g. Vanhala (2008) and Hudson (2011) have used questionnaires when studying middle managers careers and career related choices. Similarly, Stavard and Nielsen (2012) have also used questionnaires when investigating Danish university students’ career and family preferences. The aim was to get a sufficiently large sample size in order to do statistical analysis, which supported the choice of questionnaires as the chosen method of empirical research.

There are many important aspects that need to be taken into account when designing a questionnaire. The questionnaire design affects the response rate, the validity and reliability of the collected data (Saunders et al., 2007). Response rates, validity, and reliability can be maximized by carefully designing each question, having a clear questionnaire layout, clearly explaining the purpose of the questionnaire, completing pilot testing and carefully planning and executing the administration (ibid). The above aspects were emphasized when designing the questionnaire. Firstly, the questions were carefully designed, focusing on clear formulations that were easy to understand. Having each question answer a specific hypothesis ensured this. Second, the questionnaire layout was constructed around 3 different themes (career ambitions and perceptions, work and family, and norms and beliefs), which were the focus of each of the 3 hypotheses. Third, the purpose of the questionnaire was not explained too much in detail in advance, to avoid respondents from having a biased opinion about the subject when filling out the questionnaire. Next, in order to minimize obscurities and to ensure that the questions were clear and the response categories were a logical consequence of
the questions, a pilot group tested the questionnaire. The pilot group consisted of 8 professionals who were now the target group or had previously belonged to the target group of this study. Finally, the questionnaire was self-administered on Webropol, an online survey software. The software restricted respondents to answer only questions that regarded them, e.g. if a respondent did not have children, he/or she would automatically skip the "family and work section”.

5.1.1. Questionnaire design

The questionnaire is divided into background information and 4 themes, of which 3 will be the focus of this study. The first part gathers background information of the respondent; personal information (e.g. gender, educational background), work related information (e.g. current organizational level and how long the respondent had been at that level) and marital status and the partner’s organization level. In the question about current organizational level, in addition to lower and upper middle management there was an option “other, what?” in case a respondent who did not belong to the target group answered. If the respondent replied CEO, board member or entrepreneur the respondent was deleted from the sample. If the response on the other hand was specialist, the respondent was placed in either of the middle management groups based on his/her working title (Q:9) and amount of formal management experience (Q: 10).

The second part of the questionnaire, corresponding to the first hypothesis, asks about career ambitions and perceptions. All questions have one possible answer in this part with an exception of the last one where respondents are asked to indicate their agreement/disagreement to statements on a 5-point Lickert scale. The last option on the scale is “do not know” and this option is included to support the underlying belief that women would be more prone to choose the option since may be more unsure in career related statements.

The third part focuses on family and work and aims to answer the second hypothesis. In the first question the respondent is asked how many children he or she in case the answer was zero, the respondent will automatically skip all the questions about family. This part consisted of both open ended and closed questions. The open-ended questions include at what age respondents have had their first child and how much

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This restriction is made due to resource constraints. Also, open-ended questions were respondents are asked about their opinion about different phenomena are excluded from the study. They are for the interest of the thesis orderer and may be used in further projects.
leave they and their partners have taken. Since the leave period can differ quite substantially depending on the number of children, this question is left open ended for later rearrangement if a pattern can be observed. Respondents are also asked to estimate their time allocation on housework and childcare in percentages adding up to a hundred between their partner and themselves.

The fourth part focused on norms and beliefs focuses to answer the third hypothesis. All the questions in this part are directly taken from Eurobarometer (2010, 2012) and focus on respondents’ beliefs about women’s role, career interests and opportunities. All response alternatives in this part are on a 5-point Lickert scales, with “Do not know” as the last alternative.

5.1.2. Target group

The target group for the survey consists of Finnish professionals in middle management with a university background in either engineering or business. Middle managers are targeted due to two main reasons; they make the group from which executives are chosen and since middle management is often identified as the glass ceiling, which women have difficulties to surpass. The study focuses on individuals with the highest probability to become executives, meaning a group with the same background as executives. Finland Chamber of Commerce (2011), identified in their report covering all listed companies on the Helsinki Stock Exchange, that the clear majority of CEO’s have either a technical or business background. Hence, the focus will be on middle managers with a background in either engineering or business.

5.1.3. Data collection

The data was collected with the help of two organizations, the Finnish Association of Business School Graduates (SEFE) and the Academic Engineers and Architects in Finland (TEK). An E-mail with a link to the survey was sent to 1500 SEFE members on April 8th with a follow-up reminder on April the 16th. Out of 398 survey replies, 389 were usable giving a response rate on 25.9%. TEK members were approached by a member letter, sent on April 23rd, which included a link to the organizations homepage where respondents could fill out the survey after having logged in. The member letter was sent to around 44 000 members, of whom around 3210 were middle managers.4

4 This is an approximation since the organizational level is based on self-reported levels
Out of 313 filled surveys 265 were usable giving a response rate on 8,3%. According to Sounders et al. (2007) Internet mediated questionnaires tend to have a response rate lower than 11 %, implying that especially SEFE members responded actively. To ensure a high response rate respondents have an option to fill out the survey in Finnish, Swedish or English. Also, as an extra incentive for participating, an iPad Mini is raffled among the respondents.

Table 2  Summary statistics of background variables gender, age, field of education, marital status and partner’s organizational level

<table>
<thead>
<tr>
<th>Q: What is you gender?</th>
<th>Frequency</th>
<th>Per cent</th>
<th>Per cent men</th>
<th>Per cent women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>384</td>
<td>57,80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>280</td>
<td>42,2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q: Select your age range</th>
<th>Frequency</th>
<th>Per cent</th>
<th>Per cent men</th>
<th>Per cent women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 30</td>
<td>39</td>
<td>5,9</td>
<td>5,2</td>
<td>6,8</td>
</tr>
<tr>
<td>30-34</td>
<td>94</td>
<td>14,2</td>
<td>15,6</td>
<td>12,1</td>
</tr>
<tr>
<td>35-39</td>
<td>163</td>
<td>24,5</td>
<td>24,2</td>
<td>25,0</td>
</tr>
<tr>
<td>40-44</td>
<td>114</td>
<td>17,2</td>
<td>18,5</td>
<td>15,4</td>
</tr>
<tr>
<td>45-49</td>
<td>101</td>
<td>15,2</td>
<td>13,5</td>
<td>17,5</td>
</tr>
<tr>
<td>50-54</td>
<td>86</td>
<td>13,0</td>
<td>12,5</td>
<td>13,6</td>
</tr>
<tr>
<td>55 and over</td>
<td>67</td>
<td>10,0</td>
<td>10,4</td>
<td>9,7</td>
</tr>
<tr>
<td>Total</td>
<td>664</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q: Select your primary field of education</th>
<th>Frequency</th>
<th>Per cent</th>
<th>Per cent men</th>
<th>Per cent women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>389</td>
<td>58,6</td>
<td>47,1</td>
<td>74,3</td>
</tr>
<tr>
<td>Engineering</td>
<td>275</td>
<td>41,4</td>
<td>52,9</td>
<td>24,3</td>
</tr>
<tr>
<td>Total</td>
<td>664</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q: Indicate your current organization level</th>
<th>Frequency</th>
<th>Per cent</th>
<th>Per cent men</th>
<th>Per cent women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Middle management</td>
<td>310</td>
<td>46,7</td>
<td>44,8</td>
<td>49,3</td>
</tr>
<tr>
<td>Upper Middle management</td>
<td>354</td>
<td>53,3</td>
<td>55,2</td>
<td>50,7</td>
</tr>
<tr>
<td>Total</td>
<td>664</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q: Indicate your marital status</th>
<th>Frequency</th>
<th>Per cent</th>
<th>Per cent men</th>
<th>Per cent women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmarried</td>
<td>80</td>
<td>12,0</td>
<td>10,2</td>
<td>14,6</td>
</tr>
<tr>
<td>Married/cohabiting</td>
<td>537</td>
<td>80,9</td>
<td>85,7</td>
<td>74,3</td>
</tr>
<tr>
<td>Divorced/widowed (not re-married)</td>
<td>47</td>
<td>7,1</td>
<td>4,2</td>
<td>11,1</td>
</tr>
<tr>
<td>Total</td>
<td>664</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q: What option best describes your partner’s org. level in comparison to your org. level</th>
<th>Frequency</th>
<th>Per cent</th>
<th>Per cent men</th>
<th>Per cent women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower organizational level than me</td>
<td>261</td>
<td>39,3</td>
<td>48,2</td>
<td>27,1</td>
</tr>
<tr>
<td>Higher organizational level than me</td>
<td>140</td>
<td>21,1</td>
<td>19,5</td>
<td>23,2</td>
</tr>
<tr>
<td>Same organizational level</td>
<td>105</td>
<td>15,8</td>
<td>7,3</td>
<td>27,5</td>
</tr>
<tr>
<td>Partner not working</td>
<td>73</td>
<td>11,0</td>
<td>16,4</td>
<td>3,6</td>
</tr>
<tr>
<td>No partner</td>
<td>85</td>
<td>12,8</td>
<td>8,6</td>
<td>18,6</td>
</tr>
<tr>
<td>Total</td>
<td>664</td>
<td>100,00</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>
From table 1, it is possible to see that 57.8% of respondents were male and 42.2% were female. SEFE men had a slightly higher response rate than women and the opposite held for TEK members. A majority of the respondents were between 35-49 years old and no observable difference in the gender-age distribution could be detected. A clear majority of 90% held a Master’s degree. When looking at the organizational level divide, it can be observed that 46.7% of respondents belonged to lower middle management and 53.3% belonged to upper middle management. Men were slightly better represented in upper middle management than women (55.3% vs. 50.7%). A majority of respondents, around 80%, were married or cohabiting. As observed in previous studies (Kartovaara, 2003 and Vanhala, 2008), women in this study are more often unmarried or divorced/widowed than men. Almost 40% of respondents had 2 children; however men tend to have more children than women.

When comparing the partner’s organizational level of middle managers, clear differences can be seen. Almost 50% of male respondents are at a higher organizational level than their partners, for women the amount was 27.1. For women the most common answer was that their partner is at the same organizational level as themselves. For men it was more common that their partner is not working than for women (16.4% vs. 3.6%).

5.2. Data processing

The following methods are used in order to test the hypothesis: Binary logistic regressions and significance tests

5.2.1. Binary logistic regression

In order to test hypothesis 1 and hypothesis 2, regarding what factors can explain middle managers desire for career advancement and whether children have permanently altered managers’ career preferences, binary logistic regressions are used. The dependent variable, Y, can take two possible values, which reflect the respondents’ decisions. The two outcomes will be labeled as 0 (no) and 1 (yes) in both hypothesis 1 and 2.

The regression model will predict the logit, which is, the natural log of the odds of having made one or the other decision (Wuensch, 2009)
\[
\ln\left(\frac{\pi}{1-\pi}\right) = \text{logit} (\pi) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_m x_m
\]

Where \(\pi\) represents predicted probability of an event which is coded 1 (yes) occurs, \(\beta_0, \beta_1, \ldots, \beta_k\) are estimated regression coefficients and \(x_1, x_2, \ldots, x_k\) are predictor variables. The estimation of the logistic regression is then performed by maximum likelihood estimation.

### 5.2.2. Data processing: Significance tests

In order to test whether two variables are independent, a Pearson \(\chi^2\) test is made on cross-tabulations of two variables. Pearson \(\chi^2\) tests the null-hypothesis that there is independence between the two observed variables. The value of the test statistics is as follows:

\[
\chi^2 = \sum_{i=1}^{r} \sum_{j=1}^{c} \frac{(O_{ij} - E_{ij})^2}{E_{ij}} \sim \chi^2 ((r-1)(c-1))
\]

where \(O_i\) is the observed frequency, \(E_{ij}\) is the expected frequency, \(r\) stands for rows and \(c\) for columns in a table (Greenwood & Nikulin 1996). Thus it tests whether the rows and columns in the tables are independent, in other words whether two observed variables are different or not. If the null hypothesis can be rejected, it can be an indication that the two variables are dependent.

A proportion test looks at whether two proportions are significantly different from each other. For this purpose, a two-sided hypothesis test for proportions is used. The null-hypothesis is that the observed units do not differ, i.e. \(H_0 : p_1 = p_2, H_2 : p_1 \neq p_2\) (Agresti and Franklin, 2007). The proportion test uses the following test statistic:

\[
Z = \frac{p_1 - p_2}{\sqrt{\hat{p} * (1 - \hat{p}) \left( \frac{p_1}{n_1} + \frac{p_2}{n_2} \right)}} \quad \text{where} \quad \hat{p} = \frac{p_1}{n_1} + \frac{p_2}{n_2}
\]

\(p_1\) and \(p_2\) are the two units that are tested whether they significantly differ from each other, \(n_1\) and \(n_2\) are the corresponding number of respondents. If not stated otherwise, a five percent significance level is used in the tests. This is the test statistic that is used when it is stated that two proportions significantly differ in chapter 6. The \(z\)-values and \(p\)-values are presented in a footnote when a significant difference is found.
6 EMPIRICAL FINDINGS

6.1 H 1 – Career ambition and preferences

The first hypothesis has 5 sub hypotheses, which will be individually tested and results are presented separately. This is followed by an overall conclusion of all sub hypotheses (denoted SH in headings)

6.1.1 SH 1.1 – Willingness to consider promotions

The first sub hypothesis will test whether there is a gender difference in the desire for career advancement i.e. a difference in the willingness to consider a promotion. From table 3 it is possible to see that 87,1% of the respondents have answered that they are willing to consider a promotion and only 13,24% are not willing to consider one. This suggests that middle managers have an interest in career advancement.

Table 3 Percentual division of managers’ will to consider a promotion according to gender.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>90,4</td>
<td>9,6</td>
<td>100,00</td>
</tr>
<tr>
<td>Women</td>
<td>83,9</td>
<td>16,9</td>
<td>100,00</td>
</tr>
<tr>
<td>Total</td>
<td>87,15</td>
<td>13,25</td>
<td>100,00</td>
</tr>
<tr>
<td>Observations</td>
<td>664</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi2</td>
<td>6,197</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-value</td>
<td>0,013</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the table one can see that there is a difference between the percentage of men (90,4%) and women (83,9%) who have answered positively. Pearson’s χ² test shows that the two observed variables are independent, which indicates that there is a statistically significant difference between the will of men and women to consider a promotion. In order to verify this and look into what variables may impact the decision to consider and not to consider a promotion a binary logistic regression, see in table 5, is constructed. The regression includes a number of explanatory variables that can be seen in table 4.
Table 4  Summary statistics for the explanatory variables used in the binary logistic regression.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woman (0/1)</td>
<td>0.420</td>
<td>0.4940</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Age (years, range)</td>
<td>4.050</td>
<td>1.7880</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Education (Masters 0/1)</td>
<td>0.930</td>
<td>0.2490</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Management (Upper 0/1)</td>
<td>0.530</td>
<td>0.4990</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Organization level time (years)</td>
<td>4.970</td>
<td>4.7160</td>
<td>0</td>
<td>29</td>
</tr>
<tr>
<td>0 child (0/1)</td>
<td>0.262</td>
<td>0.4401</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1 child (0/1)</td>
<td>0.169</td>
<td>0.3748</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2 child (0/1)</td>
<td>0.396</td>
<td>0.4895</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3+ child (0/1)</td>
<td>0.173</td>
<td>0.3787</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>No partner (0/1)</td>
<td>0.130</td>
<td>0.3340</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Partner lower (0/1)</td>
<td>0.390</td>
<td>0.4890</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Partner same (0/1)</td>
<td>0.210</td>
<td>0.4080</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Partner higher (0/1)</td>
<td>0.160</td>
<td>0.3650</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Partner not working (0/1)</td>
<td>0.110</td>
<td>0.3130</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

664 observations

The variable woman is a dummy variable, which takes the value 1 if the respondent is a woman and 0 if it is a man. The variable age can take values from 1 to 8, corresponding to 5 year age ranges (see table 2). Next, the variable education takes the value 1 if the respondent has a Masters or a PhD degree and 0 in case the respondent has a Bachelor’s degree. Likewise, management is dummy variable, where 1 indicates upper management and 0 indicates lower management. Variable organization level time indicates years at current organizational level. For the number of children 4 dummies are constructed: 0 child, 1 child, 2 child and 3+ child. 0 child is used as reference category and are therefore not used in the model. In other words, when dummy variables are interpreted it is done in relation to reference categories. Similarly, 5 dummies are needed to describe a partners’ work status in relation to the respondents. These include: no partner, partner lower, partner same, partner higher and partner not working. Partner no work is excluded and will be used as reference category.
The direct logistic regression performed to assess the likelihood of respondents desiring career advancement with special interest to the coefficient depicting variable woman. Overall, the model was statistically significant, $\chi^2 (12, N=664)=100.65, p<0.01$. As shown in table 5, only four of the independent variables made a statistically significant contribution to the model (woman $p=0.025$, age $p=0.000$, education $p=0.001$ and organization level time $p=0.005$). What is seen from table three is also confirmed in the binary logistic regression: variable woman is significant and shows a negative B value (-0.636). The B value indicates the direction of the relationship; in this case women are more likely to answer negatively to the question whether they are willing to consider a promotion.

Variable age can be interpreted as the older one gets, the less likely one is to answer yes. Education again shows a positive B, meaning that a respondent with a Master's or a PhD degree is more likely to consider promotions people with only Bachelor's degrees. Since a majority of respondents have a higher-level degree, there is little variability in this independent variable, which could affect the results. The longer a respondent has been at their current organization level has a negative effect on the promotion desire. Finally on a 10% significance level ($p=0.074$) respondents with three children or more are less likely to answer yes in contrast to respondents with no children.
In light of this and the results of Table 3, results suggest that there is a difference in female and male middle managers’ desire for career advancement. Thus, sub-hypothesis 1.1 is not confirmed.

6.1.2. **SH 1.2 – Organizational level aspirations**

Below, a cross table between variable gender and aspired organization level is constructed. Senior executive management refers to CEO and Vice President positions, while executive management refers to all other executive group positions.

<table>
<thead>
<tr>
<th>Table 6</th>
<th>Percentual divisions of what organizational level managers aspire to achieve. The table is divided by gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Lower middle management</td>
</tr>
<tr>
<td>Men</td>
<td>2,9</td>
</tr>
<tr>
<td>Women</td>
<td>3,9</td>
</tr>
<tr>
<td>Total</td>
<td>3,3</td>
</tr>
<tr>
<td>Observations</td>
<td>664</td>
</tr>
<tr>
<td>Chi²</td>
<td>20,715</td>
</tr>
<tr>
<td>P-value</td>
<td>0,000</td>
</tr>
</tbody>
</table>

About half of middle managers, regardless of gender aspire to executive management positions (48.7% of men, 52.7% of women). The gender differences are more pronounced in the organizational level below and above executive management. Significantly more men aspire to senior executive management positions. Women on the other hand have lower aspirations; significantly more women aspire to reach upper middle management than men. Pearson’s $\chi^2$ on the whole table shows a statistically significant difference ($p= 0.000$) between gender and aspired organization level.

Since the number of respondents who aspire to achieve senior executive positions significantly differs between men and women, it is interesting to look into what role age plays in career aspirations. Table 7, shows the percentage of men and women who aspire to achieve senior executive positions by age groups.

---

$^5 Z=4.2338 \ p=0.0000$

$^6 Z=3.0215 \ p=0.0025$
Table 7  Percentage of middle managers who aspire to achieve senior executive management positions. The table is divided by age range and gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Under 30</th>
<th>30-34</th>
<th>35-39</th>
<th>40-44</th>
<th>45-49</th>
<th>50-54</th>
<th>Over 55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>45</td>
<td>40</td>
<td>51,6</td>
<td>31</td>
<td>28,8</td>
<td>12,5</td>
<td>12,5</td>
</tr>
<tr>
<td>Woman</td>
<td>36,8</td>
<td>35,3</td>
<td>32,9</td>
<td>9,3</td>
<td>6,1</td>
<td>10,5</td>
<td>3,7</td>
</tr>
<tr>
<td>Total</td>
<td>40,9</td>
<td>37,7</td>
<td>42,3</td>
<td>20,2</td>
<td>17,5</td>
<td>11,5</td>
<td>8,1</td>
</tr>
<tr>
<td>Observations</td>
<td>39</td>
<td>94</td>
<td>163</td>
<td>114</td>
<td>101</td>
<td>86</td>
<td>67</td>
</tr>
<tr>
<td>Chi2</td>
<td>0,268</td>
<td>0,203</td>
<td>5,715</td>
<td>7,152</td>
<td>8,895</td>
<td>0,08</td>
<td>1,53</td>
</tr>
<tr>
<td>P-value</td>
<td>0,605</td>
<td>0,652</td>
<td>0,017</td>
<td>0,007</td>
<td>0,003</td>
<td>0,777</td>
<td>0,216</td>
</tr>
</tbody>
</table>

Respondents who answered that they aim to achieve any other position than senior executive management are not depicted in the table.

The table shows that almost 40% of respondents under the age of 34 aspire to achieve senior executive positions. The number is slightly lower for women, but no significant gender difference can be observed. The same holds for over 50 year-old middle managers. Around 10% aspire to the highest positions. Here again, the percentages are slightly lower for women than men. The significant differences (p<0.05) are in the three age groups between 35 and 49. The Pearson’s $\chi^2$ test shows that for the three age groups there is significant difference between gender and aspirations to become senior executive. In other words, significantly more men in the age range 35-49 aspire to reach senior executive positions than women. Women’s aspirations seem to decrease drastically between these age groups, whereas men of ages 35-39 show a clear increase in aspiring to senior management. Considering that the average age at first childbirth is 30 years (see table 18) and 57% of managers have 2 or more children, it may be that when children are young women lower their career aspirations and thus no longer aspire to senior executive management. This is however, partially contradicted since there is no significant difference in aspiring to senior executive management between no difference in aspirations to reach executive management level between women with and without children (See appendix 2). In other words, the results suggest that having children does not affect whether women aspire to reach executive or senior executive management positions.

Based on the results in table 6, one can see that the results are in line with of Hudson’s study (2012) on American middle managers advancement aspirations. Thus, sub-hypothesis 1.2 is confirmed.

---

$7 Z=1.0271 \text{ p}=0.3044$
6.1.3. *SH 1.3 – Confidence in skills and career prospects*

In order to test whether men middle management have more confidence in their career prospects and skills than women, the focus is first laid on what career phase middle managers evaluate themselves to be at and how age affect the evaluation. The results can be seen in table 8 and 9.

**Table 8**  Percentual divisions regarding what phase manager’s currently perceive their career to be at. The table is divided by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Lowering</th>
<th>Stable</th>
<th>Horizontal</th>
<th>Rising</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>3.9</td>
<td>30.2</td>
<td>43</td>
<td>22.9</td>
</tr>
<tr>
<td>Women</td>
<td>5.4</td>
<td>41.1</td>
<td>38.2</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>4.65</td>
<td>35.65</td>
<td>40.6</td>
<td>18.95</td>
</tr>
</tbody>
</table>

Observations 664  
Chi2 12.666

*Moving horizontally in order to move forward*

**Table 9**  Percentage of middle managers who perceive their career to currently moving horizontally or rising. The table is divided by age range and gender

<table>
<thead>
<tr>
<th></th>
<th>Under 35</th>
<th>35-49</th>
<th>Over 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>90</td>
<td>60.6</td>
<td>65.9</td>
</tr>
<tr>
<td>Woman</td>
<td>83.1</td>
<td>45.3</td>
<td>53.2</td>
</tr>
<tr>
<td>Total</td>
<td>86.55</td>
<td>52.95</td>
<td>59.55</td>
</tr>
</tbody>
</table>

A majority of respondents consider themselves to be at a stable phase (35,65%) or moving horizontally (40,6) in their career. A significant difference is observed in the number of men (22,9%) and men (15%) who answered rising. There are also a significantly higher proportion of women who answered perceived to be at a stable phase (41,1%) compared to men (38,2%). Overall, a significant difference (p= 0,005) between variables gender and perceived career phase is detected. Table 9 further examines the relationship of managers who perceive their career to currently move horizontally or rising. Around 87 % of managers under the age of 35, state that their careers are moving forward. This percentage decreases with more than a third to 52,95% for managers between 35-49 year-olds, where as it again increases for managers over 50. It is understandable that career advancement slows down with age for many managers since there are only limited amount of positions available in the highest ranks. However having and taking care of small children could partly explain

---

8 $Z=2.6074$ $p=0.0091$  
9 $Z= 2.948$ $p=0.0032$
the considerable drop for both male and female managers between 35-49. When children get older, managers can again aggressively pursue their careers, which could partly explain the increase for over 50 year-olds stating that their careers are moving forward.

Next, focus shifts to whether middle managers feel confident that they will achieve their career target. Table 8 depicts the relationship between the statement and gender.

**Table 10** Percentual division of middle managers who agree or disagree with the statement: I am confident that I will achieve my career target. The table is divided by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Fully agree</th>
<th>Do not know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>2,1</td>
<td>10,4</td>
<td>53,1</td>
<td>30,2</td>
<td>4,2</td>
<td>100</td>
</tr>
<tr>
<td>Women</td>
<td>1,4</td>
<td>12,9</td>
<td>51,1</td>
<td>31,1</td>
<td>3,6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>1,75</td>
<td>11,65</td>
<td>52,1</td>
<td>30,65</td>
<td>3,9</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observations</th>
<th>664</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi2</td>
<td>1.543</td>
</tr>
<tr>
<td>P-value</td>
<td>0.819</td>
</tr>
</tbody>
</table>

A substantial majority, more than 80%, of respondents either tend to agree or fully agree with the statement. Gender differences between response alternatives are marginal and no significant differences are observed. Although no gender differences are found, it is important to notice that there is a significant difference in the organizational level that men and women aim to achieve since women, in general, aims to achieve at a lower organization level than men.

In table 9 a cross table is set up to depict the relationship between gender and the agreement or disagreement of whether middle managers believe that they have the required skills and abilities for further career advancement.
Table 11  Percentual division of middle managers who agree or disagree with the statement: I have the needed skills and abilities for further career advancement to senior level positions or higher. The table is divided by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Fully agree</th>
<th>Do not know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>2,1</td>
<td>7,8</td>
<td>42,4</td>
<td>44,5</td>
<td>3,1</td>
<td>100</td>
</tr>
<tr>
<td>Women</td>
<td>1,4</td>
<td>7,5</td>
<td>44,6</td>
<td>44,3</td>
<td>2,1</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>1,75</td>
<td>7,65</td>
<td>43,5</td>
<td>44,4</td>
<td>2,6</td>
<td>100</td>
</tr>
</tbody>
</table>

Observations 664  
Chi2 1,163  
P-value 0,884

No significant gender variety in responses between genders can be observed in the above table. More than 85% of middle managers consider themselves to have the required skills and abilities for career advancement to the highest corporate positions. Less than 10% totally disagree or tend to disagree with the statement, implying that respondents overall have confidence in their skills.

To conclude, the sub-hypothesis cannot be confirmed; no difference in confidence regarding career prospects and skill set was found between respondents. A clear majority of respondents believed that they have what it takes to advance to senior level positions or higher and were confident that they would achieve their set career targets. Interestingly, significantly more women considered themselves to currently be at a stable phase in their career whereas significantly more men were at a rising phase.

6.1.4.  *SH 1.4 – Career ambition and planning*  
The next hypothesis concentrates on whether a gender difference exists in career ambition and planning. Below, respondents are asked to take a stand to whether they have a clear career target.

Table 12  Percentual division of middle managers who agree or disagree with the statement: I have a clear career target. The table is divided by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Fully agree</th>
<th>Do not know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>4,4</td>
<td>18,8</td>
<td>49,7</td>
<td>26</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Women</td>
<td>3,6</td>
<td>26,1</td>
<td>44,3</td>
<td>25,4</td>
<td>0,7</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>22,45</td>
<td>47</td>
<td>25,7</td>
<td>0,85</td>
<td>100</td>
</tr>
</tbody>
</table>

Observations 664  
Chi2 5,503  
P-value 0,239
From table 10 it is possible to see that a majority of respondents either tend to agree (47%) or fully agree (25.7%) with the statement. A significant\(^{10}\) gender difference is observed in response alternative tend to agree, here men show a higher percentage than women. This gender difference also prevails when adding up the two positive response alternatives (men 75.7% vs. 69.7%) however only at a 10% significance level\(^{11}\). Nevertheless, when looking at the whole table, there seems to be no significant (p=0.239) difference between gender and the statement, which suggest that male and female managers do not differ in having career goal targets.

The next statement is similar to the previous, however instead of career targets it looks into deliberate career planning. Responses are broadly distributed among the response alternatives. Computed from the below table, almost half of the respondents disagree and the other half disagrees with the statement. No significant gender differences can be observed among the response categories.

| Table 13 Percentual division of middle managers who agree or disagree with the statement: I have consciously planned my career. The table is divided by gender |
|---|---|---|---|---|---|---|
| Gender | Totally disagree | Tend to disagree | Tend to agree | Fully agree | Do not know | Total |
| Men | 14.8 | 35.4 | 35.7 | 13.3 | 0.8 | 100 |
| Women | 17.9 | 29.6 | 36.8 | 14.3 | 1.4 | 100 |
| Total | 16.35 | 32.5 | 36.25 | 13.8 | 1.1 | 100 |

The final statement to this sub hypothesis looks at activity in relation to career advancement. Table 14 presents the results on whether respondents are continuously on the lookout for career advancement opportunities. It turns out that 61.45% agree (tend to agree + totally agree) with the statement. When looking at respondents who chose totally disagree a significant\(^{12}\) gender difference is spotted, 10% of women totally disagree that they are on the lookout for advancement opportunities, compared to 5.2% of men. Overall, there is no significant (p=0.239) difference between the statement and gender.

\(^{10}\) \(Z=2.2112, p=0.027\)

\(^{11}\) \(Z=1.7057, p=0.088\)

\(^{12}\) \(Z=2.3657, p=0.018\)
Table 14  Percentual division of middle managers who agree or disagree with the statement: I am continuously on the lookout for career advancement opportunities. The table is divided by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Fully agree</th>
<th>Do not know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>5,2</td>
<td>30,7</td>
<td>35,7</td>
<td>27,6</td>
<td>0,8</td>
<td>100</td>
</tr>
<tr>
<td>Women</td>
<td>10</td>
<td>30</td>
<td>33,2</td>
<td>26,4</td>
<td>0,4</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>7,6</td>
<td>30,35</td>
<td>34,45</td>
<td>27</td>
<td>0,6</td>
<td>100</td>
</tr>
</tbody>
</table>

Observations 664
Chi2 6,021
P-value 0,198

Based on the results in table 11, 12 and 13 sub-hypothesis 1.4 cannot be confirmed. The results suggest that there is no significant gender difference in career planning and how ambitiously middle managers seek career advancement opportunities.

6.1.5.  SH 1.5 – Promotion offers and acceptance

The final sub-hypothesis starts off by looking at how and if respondents have accepted promotions in their current organization

Table 15  Percentual division of middle managers who have accepted promotions in their current organization. The table is divided by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>No, offers</th>
<th>Yes, once</th>
<th>Yes, more than once</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>38,5</td>
<td>28,6</td>
<td>32,8</td>
</tr>
<tr>
<td>Women</td>
<td>42,5</td>
<td>31,4</td>
<td>26,1</td>
</tr>
<tr>
<td>Total</td>
<td>40,5</td>
<td>30,0</td>
<td>29,45</td>
</tr>
</tbody>
</table>

Observations 664
Chi2 3,507
P-value 0,173

Table 14 shows that 40,5% of middle managers have not been offered a promotion at their current organization. There is no significant gender difference in the amount of middle managers that have not received promotion offers. A slightly, but not significantly, higher percentage of men have received promotion offers than women (61,4% vs. 57,5). This means that men are not more likely to get significantly more

\[ Z=1,0087 \ p=0.3131 \]
promotion offers than women. However, a significant gender difference is found when looking at middle managers who have received more than one promotion at their current organization.

Next, focus shifts to whether middle managers have declined promotions in their current organization.

Table 16  Percentual division of middle managers who have declined promotions in their current organization. The table is divided by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>No offers</th>
<th>No, accepted all offers</th>
<th>Yes, once</th>
<th>Yes, more than once</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man</td>
<td>40,1</td>
<td>50</td>
<td>6,8</td>
<td>3,1</td>
</tr>
<tr>
<td>Women</td>
<td>45</td>
<td>46,4</td>
<td>6,8</td>
<td>1,8</td>
</tr>
<tr>
<td>Total</td>
<td>42,55</td>
<td>48,2</td>
<td>6,8</td>
<td>2,45</td>
</tr>
<tr>
<td>Observations</td>
<td>664</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi2</td>
<td>2,481</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-value</td>
<td>0,479</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Here the two last columns, which depict whether middle managers have declined promotion offers, are of interest. It turns out that 9.25% have declined promotion offers; an equal number (6,8%) have declined once and slightly more men than women have declined more than once. In other words, there is not a significant gender difference in turning down promotion offers and in getting offered promotions as can be seen from table 15. Based on these results, sub-hypothesis 1.5 cannot be accepted.

6.1.6. Summary of Hypothesis 1

Out of 5 sub-hypothesis only one could be confirmed, namely that men in general aspire to achieve a higher organization level than women. Thus, the first hypothesis cannot be confirmed as a whole. It turns out that significantly more men than women are willing to consider a promotion, which suggests that men have more preferences for career advancement. In contrast to what could be expected from reviewing previous studies, the results suggest that both men and women are confident that they will reach their career target, actively plan their careers, have the required skills for career advancement and accept and decline promotions in the same extent. The main differences, in addition to men having more preferences for career advancement is that significantly more men than women aspire to senior executive positions. Also, women themselves perceive to be at a stable career phase more often than men, whereas more
men than women are in a rising career phase. The lowest numbers and largest gender differences can be observed for managers who are between 35 and 49 of age. The differences in career aspirations and the perceived career phase could partially be due to the role family plays in at these ages considering that managers at this age frame tend to have small children to care for. The role of family on career goals and the balancing act of the two will be further investigated in the next hypothesis.

6.2. Hypothesis 2 – Work and family

It can be seen from hypothesis one that men and women differ in their will to consider promotions and that men strive for a higher organization level (see table 3 and table 6). Results also show that this is not due to lack of career planning or confidence in skills. The second hypothesis therefore sets to investigate whether having children and balancing work and family affect middle managers’, especially women's, careers differently. The hypothesis will concentrate on how men and women have organized their family conditions and how this may affect perceived career prospects.

6.2.1. SH 2.1 – Children and career goals

In order to test sub-hypothesis 2.1 a cross table of gender and whether having children has permanently altered middle managers’ career goals. This can be seen in table 16.

<table>
<thead>
<tr>
<th>Gender</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>72,1</td>
<td>27,9</td>
</tr>
<tr>
<td>Women</td>
<td>66</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>69,05</td>
<td>30,95</td>
</tr>
</tbody>
</table>

Here one can see that having children has not altered the goals of the majority, around 70%, of middle managers. The percentage of women whose career goals had been altered was slightly higher than for men (34,95 vs. 27,9). Pearson’s $\chi^2$ on the whole

---

15 Almost 60% of managers have two or more children and the average age at first childbirth for managers is 30,3
The table shows that the observed variables are independent from each other meaning that having children does not alter the career goals of men and women differently. In order to verify this and study what factors may impact why having children alter career goals, a binary logistic regression is constructed (see table 17). The explanatory variables and summary statistics about them can be seen in table 18.

**Table 18  Summary statistics for the explanatory variables used in the binary logistic regression.**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woman (0/1)</td>
<td>0.42</td>
<td>0.494</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Age (years, range)</td>
<td>4.05</td>
<td>1.788</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1 child (0/1)</td>
<td>0.169</td>
<td>0.375</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2 child (0/1)</td>
<td>0.396</td>
<td>0.489</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3+ child (0/1)</td>
<td>0.173</td>
<td>0.379</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Age at first childbirth (years)</td>
<td>30.39</td>
<td>4.524</td>
<td>17</td>
<td>46</td>
</tr>
<tr>
<td>Family leave (months)</td>
<td>14.00</td>
<td>20.822</td>
<td>0</td>
<td>216</td>
</tr>
<tr>
<td>Family leave partner (months)</td>
<td>19.29</td>
<td>22.94</td>
<td>0</td>
<td>120</td>
</tr>
<tr>
<td>Childcare/household help (0/1)</td>
<td>0.42</td>
<td>0.494</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Childcare responsibility (0-100)</td>
<td>48.29</td>
<td>20.658</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Household responsibility (0-100)</td>
<td>50.66</td>
<td>18.99</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

The five first variables were also used in the logistic regression used in sub-hypothesis 1.1. The table shows that the mean age for first childbirth was 30.39 years. On average, middle managers take 14 months of family leave (including maternity or paternity leave, parental leave and care leave) while their partners on average take 5 months more. There is large variability in the responses, mainly because mothers take the majority of the leave period. Further, 42% of managers use external help (e.g. household and childcare). Thus, middle managers on average seem to share childcare and household responsibilities quite evenly with their partners.

A direct logistic regression performed to assess the likelihood of respondents having altered their career goals due to children. As in sub-hypothesis 1.2, the coefficient of main interest is woman. In order to verify sub-hypothesis 2.1, the coefficient needs to be insignificant.
Table 19  Binary logistic regression predicting likelihood whether having children has altered middle managers career goals

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>S.E</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woman</td>
<td>0.065</td>
<td>0.368</td>
<td>0.031</td>
<td>1</td>
<td>0.860</td>
</tr>
<tr>
<td>Age</td>
<td>-0.059</td>
<td>0.074</td>
<td>0.637</td>
<td>1</td>
<td>0.425</td>
</tr>
<tr>
<td>2 child</td>
<td>1.351</td>
<td>0.353</td>
<td>14.670</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>3+ child</td>
<td>1.266</td>
<td>0.446</td>
<td>8.047</td>
<td>1</td>
<td>0.005</td>
</tr>
<tr>
<td>Age at first childbirth</td>
<td>0.135</td>
<td>0.029</td>
<td>21.699</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>Family leave</td>
<td>-0.011</td>
<td>0.007</td>
<td>2.345</td>
<td>1</td>
<td>0.126</td>
</tr>
<tr>
<td>Family leave partner</td>
<td>-0.011</td>
<td>0.006</td>
<td>3.291</td>
<td>1</td>
<td>0.044</td>
</tr>
<tr>
<td>Childcare/household help</td>
<td>0.226</td>
<td>0.229</td>
<td>0.974</td>
<td>1</td>
<td>0.324</td>
</tr>
<tr>
<td>Childcare responsibility</td>
<td>0.019</td>
<td>0.009</td>
<td>4.694</td>
<td>1</td>
<td>0.030</td>
</tr>
<tr>
<td>Household responsibility</td>
<td>0.003</td>
<td>0.009</td>
<td>0.172</td>
<td>1</td>
<td>0.721</td>
</tr>
</tbody>
</table>

Overall, the model is statistically significant, $\chi^2 (12, N=664)= 53.842, p< 0.000$. As can be seen in table 18, the independent variables that made a statistically significant contribution to the model were dummy 2 child ($p=0.000$), dummy 3+ child ($p=0.005$) age at first childbirth ($p=0.000$), childcare responsibility ($p=0.03$) and childcare leave partner at a 10% significance level. As for the interpretation of the variables, respondents with 2 or 3+ children were more likely were more likely to answer that their career goals had been altered due to children than respondents with only one child. The older managers have been when having their first child, the more likely they are to say yes. The longer family leave a manager’s partner has taken, the more likely a manager is to answer that children have not altered the manager’s career goals. Finally, the more time a manager allocates to childcare duties, the more likely he/she will answer positively.

The variable for women does not turn out to be significant ($p=0.860$), which is also supported by the cross table 17. The results suggest that there is no gender difference in whether having children has altered managers’ career goals. Therefore, sub-hypothesis 2.1 can be confirmed.

**6.2.2. SH 2.2 – Career goal compromises**

Although the first sub-hypothesis was confirmed and there is no significant gender difference in whether children alter managers’ career goals, the focus shifts to whether managers or their partners have made career target compromises in order to balance family and work life. This question is similar to the one studied in sub-hypothesis 2.1, however, the wording is less definite (permanently alter vs. compromise) and here the
interest is looking at how middle managers have chosen to balance family and work. Some caution is needed when looking at the results, since some respondents may not find any of the alternatives suitable to describe their situation.\(^{16}\)

**Table 20** Percentual division of whether career target compromises have been made in order to balance family and work life. The table is divided by gender.

<table>
<thead>
<tr>
<th>Type</th>
<th>Type 1</th>
<th>Type 2</th>
<th>Type 3</th>
<th>Type 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man</td>
<td>46.3</td>
<td>4.2</td>
<td>23.3</td>
<td>26.1</td>
</tr>
<tr>
<td>Woman</td>
<td>48.8</td>
<td>25.6</td>
<td>5.9</td>
<td>19.7</td>
</tr>
<tr>
<td>Total</td>
<td>47.55</td>
<td>14.9</td>
<td>14.6</td>
<td>22.9</td>
</tr>
</tbody>
</table>

| Observations | 644 |
| Chi2         | 66.48 |
| P-value      | 0.000 |

Type 1: No career compromise
Type 2: Partner’s career has taken first priority while the respondent has had to make career target compromises
Type 3: Respondent’s career has taken first priority while the partner has had to make career target compromises
Type 4: Both respondent and partner have had to make career target compromises

What can be seen from table 19 is that almost 50% of respondents state that they have not had to compromise on their career goals. On the other hand, almost 23% of respondents stated that both themselves and their partners have had to compromise had made compromises. That leaves only slightly less than a third, 29.5% stating that they have compromised on career goals. Significant differences could be found in who had made career compromises. Women were five times more likely than men to answer that they had made compromises while their partner’s career took first priority, which is a significant difference.\(^{17}\) Men on the other hand, were almost three times more likely to state that their career had taken first priority while their partners had made compromises, which also significantly differs between genders.\(^{18}\) As expected, subhypothesis 2.2 can be confirmed, female middle managers are more likely to compromise on their career targets than men in middle managers. However, as stated above, it is important to underline that almost half of respondents have not had to make any career goal compromises.

---

\(^{16}\) All respondents with children were required to take a stand to the question, although there were respondents who were single parents and thus none of the response alternatives were applicable.

\(^{17}\) Z=7.5969 p= 0.000

\(^{18}\) Z=6.6177 p=0.000
6.2.3. **SH 2.3 – Temporary career slowdowns**

The third sub-hypothesis focuses on what effect children have had on middle managers careers a couple years after having had them. Special attention is given to whether there is a higher proportion of women who state that having children has resulted in an involuntary career slowdown, since this could indicate that statistical discrimination has played a part in the slowdown.

**Table 21** Percentual division of how middle managers perceive their career to having been effected up to a couple years after having had children. The table is divided by gender.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Voluntary career slowdown</th>
<th>Involuntary career slowdown</th>
<th>No career slowdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>27,9</td>
<td>1,4</td>
<td>70,7</td>
</tr>
<tr>
<td>Woman</td>
<td>39,9</td>
<td>9,9</td>
<td>50,2</td>
</tr>
<tr>
<td>Total</td>
<td>32,9</td>
<td>4,9</td>
<td>62,2</td>
</tr>
<tr>
<td>Observations</td>
<td>664</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi²</td>
<td>30.619</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-value</td>
<td>0,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the above table, one can see that a majority, 70,7% of men and 50,2% of women do not believe that having children has resulted in a career slowdown. Significantly more men have not encountered a career slowdown compared to women\(^{19}\). Likewise, there are significant gender differences in whether the career slowdown was voluntary\(^{20}\) or involuntary\(^{21}\). As expected, women are more likely to face career slowdowns when having children compared to men, largely due to women taking the primary responsibility of children in their first year or years. Although women are 7 times more likely than men to be affected by an involuntary career slowdown, only one out of ten feel like the career slowdown has been involuntary. Almost 40% of women compared to 28% men have voluntarily slowed down their career advancement a couple of years after having had children. The results suggest that the career slowdown men and women face when having children is to a large extent a voluntary decision.

Paternity leave and the hours worked a week are reflected in career slowdowns. As covered in the chapter 3.3 on signaling intensity, parental leave and weekly working hours have an effect on the signaling opportunities. Thus, it is of interest to look into

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\(^{19}\) Z=5,4080 p=0,000 \\
\(^{20}\) Z=3,2248 p=0,0013 \\
\(^{21}\) Z=4,5066 p=0,000
how much parental leave middle managers and their partners take, but also, how many hours middle managers have worked before and after having had children. The below table shows how many months of parental leave middle managers have taken. What needs to be observed is that the figures do not account for how many children middle managers have.

Table 22  Percentual divisions of how many months of parental leave middle managers have taken in total during their careers. The table is divided by gender

<table>
<thead>
<tr>
<th></th>
<th>Under 1</th>
<th>1-2</th>
<th>3-5</th>
<th>6-12</th>
<th>13-24</th>
<th>25-36</th>
<th>37-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>33,3</td>
<td>43,3</td>
<td>15,5</td>
<td>4,7</td>
<td>2,3</td>
<td>0,8</td>
<td>0,4</td>
</tr>
<tr>
<td>Woman</td>
<td>0,5</td>
<td>2,5</td>
<td>3</td>
<td>12,4</td>
<td>36,1</td>
<td>29,2</td>
<td>16,3</td>
</tr>
<tr>
<td>Observations</td>
<td>485</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi2</td>
<td>348,151</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-value</td>
<td>0,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As expected, table 21 shows large gender variety in how much parental leave respondents have taken. Significant gender differences can be found in all response alternatives. The most common answer for men is 1-2 months (43,3%) and 33,3% of male respondents have taken no leave at all. For women the most common response is 13-24 months (36,1%) and 25-36 months (29,2%). Similarly, gender differences can be seen in the below tables 22 and 23 which depict the weekly hours managers have worked before and a couple of years after having children.

Table 23  Percentual division of how many hours middle managers have worked a week before having children. The table is divided by gender.

<table>
<thead>
<tr>
<th></th>
<th>Less than 37 hours</th>
<th>Between 37-44 hours</th>
<th>Between 45-60 hours</th>
<th>More than 60 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>1,7</td>
<td>61,7</td>
<td>33,1</td>
<td>3,5</td>
</tr>
<tr>
<td>Woman</td>
<td>3</td>
<td>64,5</td>
<td>32</td>
<td>0,5</td>
</tr>
<tr>
<td>Total</td>
<td>2,35</td>
<td>63,1</td>
<td>32,55</td>
<td>2</td>
</tr>
<tr>
<td>Observations</td>
<td>490</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi2</td>
<td>5,718</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-value</td>
<td>0,126</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22 0 months: z=11,0007 p=0,000 1-2 months: z=10,6497 p=0,000 3-5 months : z=6,4599 p=0,000 6-12 months z=2,8802 p=0,000 13-24 months z=9,6176 p= 0,000 25-36 months z=8,7253 p=0,000 37- months z=6,0344 p= 0,000
Table 24  Percentual division of how many hours middle managers have worked 0-5 years after having had children. The table is divided by gender.

<table>
<thead>
<tr>
<th></th>
<th>Less than 37 hours</th>
<th>Between 37-44 hours</th>
<th>Between 45-60 hours</th>
<th>More than 60 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>7</td>
<td>73,5</td>
<td>18,5</td>
<td>1</td>
</tr>
<tr>
<td>Woman</td>
<td>15,8</td>
<td>70,4</td>
<td>13,3</td>
<td>0,5</td>
</tr>
<tr>
<td>Total</td>
<td>11,4</td>
<td>71,95</td>
<td>15,9</td>
<td>0,75</td>
</tr>
<tr>
<td>Observations</td>
<td>490</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi²</td>
<td>11,211</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-value</td>
<td>0,011</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It can be seen from the above table 23 that a majority, around 63 % of managers, has worked between 37 and 44 hours a week before having children. Around a third, 32%, worked between 45 to 60 hours a week. Only small gender differences can be observed of which none are significant. When moving focus to table 24 clear gender differences appear. Both men and women tend to work less 0-5 years after having had children. At this point, the number of managers who work 45-60 hours has dropped with almost 15% for men and for women with more than 18,7%. The number of respondents who work less than 37 hours and those who have work 37-44 hours have clearly increased. Women answer “less than 37 hours” significantly more often than men. Overall, Pearson’s $\chi^2$ test shows that the two observed variables are independent, which indicates that there is a statistically significant difference between gender and hours worked 0-5 years after having had children. The results from table 23 and 24 suggest that having children has had decreased the amount of hours worked a week for both genders, however the decline has been larger for female managers than male managers.

To conclude, sub-hypothesis 2.3 can be confirmed. Women are more likely than men to encounter a career slowdown, both voluntary and involuntary, after having had children. This career slow-down is more often a voluntary choice by women and can be seen as women taking the clear majority of parental leave and working shorter hours when children are young.

6.2.4. **SH 2.4 – Time allocation on childcare and housework**

The final sub-hypothesis starts off by looking at how much childcare and housework middle managers do in comparison to their partners. Since it is hard to estimate precisely how much time middle managers allocate to these tasks a day/week,
managers were asked to estimate how much of these task they and their partner do adding up to a hundred. In this way, the fact that respondents had different aged children needing different amount of caretaking did not need to be accounted for. However, caution is needed when comparing the results of managers and the numbers from the Family Federation of Finland’s study (Miettinen, 2008) since it controlled for the children’s ages.

Table 25  Precentages representing middle managers proportion of childcare and housework.

<table>
<thead>
<tr>
<th></th>
<th>Childcare</th>
<th>Housework</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male managers</td>
<td>37,5</td>
<td>42</td>
<td>39,75</td>
</tr>
<tr>
<td>Female Managers</td>
<td>64,5</td>
<td>63,5</td>
<td>64</td>
</tr>
</tbody>
</table>

Table 23 shows that male managers in general take on 40% of the childcare and housework, whereas the number for women is 64%. There is a significant\textsuperscript{24} difference in how much time male and female managers allocate to childcare and housework. Women take on a larger part of these duties. Further, 27% of female managers state that they do 80-100% of the childcare duties and 21% state that they do 80-100% of the housework. Less than 2% of men claim to do 80-100% of childcare and housework duties. The uneven labor division of non-market work is further emphasized when looking at how male and female managers rate the importance of domestic help with regards to balancing family and work. Almost, 45% of women find domestic help to be either important or very important for balancing family and work compared to 19% of men.

Next the focus shifts to who normally takes responsibility for taking children to daycare, school etc. The results of middle managers are also compared to an equality barometer, executed by the Finnish ministry of Social Affairs and Health, surveying Finns who live with their spouse and have children under the age of 18. This study had an additional response alternative “does not apply my family”, which has been ignored in the below table.

\textsuperscript{24}Childcare: Z=6,1095 p= 0,000  Housework: Z=4,8085 p=0,000
Table 26  Percentual division of who is normally responsible for taking children to daycare, school etc.

<table>
<thead>
<tr>
<th>Gender</th>
<th>me</th>
<th>my partner</th>
<th>50/50</th>
<th>third person/other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>22,9</td>
<td>32,3</td>
<td>43,3</td>
<td>2,4</td>
</tr>
<tr>
<td>Women</td>
<td>40,9</td>
<td>16,1</td>
<td>37,9</td>
<td>5,2</td>
</tr>
<tr>
<td>Total</td>
<td>31,9</td>
<td>24,2</td>
<td>40,6</td>
<td>3,8</td>
</tr>
</tbody>
</table>

The upper part of table 26 shows that women are almost twice more likely to be responsible for taking children to daycare and school (40% vs. 22%), which accounts for a significant25 gender difference. Similarly, the partners of female managers are less likely to be the ones who are normally responsible for taking children to day care and school. Around 40% of managers’ state that they divide the responsibility equally and counting on a third person is rare.

The fourth sub-hypothesis can also be confirmed. The results suggest that women in middle management are like Finns in general and have the primary responsibility for childcare and household duties. Male managers take on around a third of childcare duties and slightly more of the household duties.

6.2.5. Summary Hypothesis 2

All four sub-hypothesis can be confirmed, which means that the second hypothesis is accepted. Becoming a parent does not permanently alter the career goals of women more than for men, yet it slows down women’s advancement more. Female manager are more likely make career target compromises in order to balance family and work by working less hours and taking more responsibility for childcare and household tasks.

6.3. Hypothesis 3 – Norms and beliefs

The third hypothesis examines middle managers’ beliefs regarding women’s roles, career interests and opportunities. On one hand the hypothesis aims to examine how widespread stereotypical beliefs are. One the other hand it aims to test whether there are age dependent differences among middle managers’ beliefs, by focusing on managers under the age of 35 and above 50. The results are also compared with Eurobarometer’s (2010, 2012) results of Finns in the same ages and Europeans in

25 Me: z=4,1408 p=0,000 my partner: z=4,1512 p=0,000
general. The latter is not informative in regards to why there are currently few women in top positions, however it may give insights about the future development of attitudes and beliefs of female leadership and roles.

In order to simplify, Finnish middle managers under the age of 35 are called younger managers and managers over the age of 50 are called older managers. The same simplifications are made for the Finns surveyed by Eurobarometer, who are called younger and older Finns.

6.3.1. SH 3.1 - Women's career interests

The first sub hypothesis looks at whether there are age dependent differences among middle managers regarding women’s interest and will to fight for leadership positions compared to men. In the first table one can see the opinions regarding women’s perceived interest for responsible positions

Table 27 Percentual division of middle managers who agree and disagree with the statement: Women are less interested than men in positions of responsibility. The percentages in the lower part of the table are from Special Eurobarometer 376, a European study on gender inequality

<table>
<thead>
<tr>
<th></th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Totally agree</th>
<th>Do not know</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers, under 35 a</td>
<td>12,0</td>
<td>39,1</td>
<td>41,4</td>
<td>4,5</td>
<td>3,0</td>
<td>51,1</td>
<td>45,9</td>
</tr>
<tr>
<td>Managers, 50+ a</td>
<td>22,9</td>
<td>32,0</td>
<td>41,8</td>
<td>1,3</td>
<td>2,0</td>
<td>54,9</td>
<td>43,1</td>
</tr>
<tr>
<td>Finns, under 35 b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>72,7</td>
<td>26,7</td>
</tr>
<tr>
<td>Finns, 50+ b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>59,9</td>
<td>38,6</td>
</tr>
<tr>
<td>Europeans b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>69</td>
<td>28</td>
</tr>
</tbody>
</table>

aThe figures represent TEK or SEFE members who work in middle management. Out of 664 respondents, 133 were under the age of 35 and 153 were 50 and over
bThe percentages are from Eurobarometer 2012. From all 47 EU member states, 26 856 European citizens participated of whom 1007 were Finnish. Out of the respondents, 208 were under 35 years and 598 were 50 years and over

From table 26 it is possible to see that a lower percentage of older managers agree with the statement compared to younger managers (43,1% vs. 45,9%). Further when looking more closely at the division between different response alternatives, older managers are almost twice as likely to choose the alternative totally disagree than younger managers. The results suggest that there are no differences in younger and older managers beliefs regarding women’s interest in responsible positions. Further, these results by Eurobarometer, show the opposite, older Finns agree with the statement more often than younger Finns (26,7 vs. 38,6). Only 28% of Europeans agree that women are less interested in responsible positions.
Table 28  Percentual division of middle managers who agree and disagree with the statement: Women are less willing than men to fight to make a career for themselves. The percentages in the lower part of the table are from Special Eurobarometer 376, a European study on gender inequality

<table>
<thead>
<tr>
<th></th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Totally agree</th>
<th>Do not know</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers, under 35 a</td>
<td>15,0</td>
<td>37,6</td>
<td>39,1</td>
<td>6,0</td>
<td>2,3</td>
<td>52,6</td>
<td>45,1</td>
</tr>
<tr>
<td>Managers, 50+ a</td>
<td>19,0</td>
<td>32,7</td>
<td>43,1</td>
<td>3,3</td>
<td>2,0</td>
<td>51,7</td>
<td>46,4</td>
</tr>
<tr>
<td>Finns, under 35 b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>65,9</td>
<td>33,0</td>
</tr>
<tr>
<td>Finns, 50+ b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>53,3</td>
<td>45,7</td>
</tr>
<tr>
<td>Europeans b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>68</td>
<td>29</td>
</tr>
</tbody>
</table>

*aThe figures represent TEK or SEFE members who work in middle management. Out of 664 respondents, 133 were under the age of 35 and 153 were 50 and over.
*bThe percentages are from Eurobarometer 2012. From all 47 EU member states, 26 856 European citizens participated of whom 1007 were Finnish. Out of the respondents, 208 were under 35 years and 598 were 50 years and over.

Table 27 looks into what respondents think about women’s will to make a career for themselves. Slightly less than 50% of younger and older middle managers agree that women are less willing than men to fight for a career. The differences are more pronounced in the lower part of the table: younger Finns agree with the statement less than older Finns (33,0% vs. 45,7%). On a general level, Europeans tend to be more conservative in their opinions about women’s will to fight for their careers, only 29% agree with the statement.

In broad terms, both of the above tables show that there are age dependent differences among Finns surveyed by Eurobarometer regarding women’s interest and will to make careers has taken place. Interestingly, this cannot be observed among middle managers. In regards to women and their interest to make careers the younger generation agrees with the statement a little less than the older generation. On the other hand, in the case of women’s will to fight for their careers, the percentage of younger managers who agree with the statement is only marginally higher than for older managers. These results suggest that the observed differences in beliefs among Finns in general do not hold for Finnish middle managers. Thus, the first sub hypothesis cannot be confirmed.

6.3.2. SH 3.2 – Women’s freedom, skills, and male confidence in women

In order to test sub hypothesis 3.2 focus is first put on table 28, which depicts middle managers beliefs about women having less freedom because of their family responsibilities.
Table 29  Percentual division of middle managers who agree and disagree with the statement: Women have less freedom because of their family responsibilities. The percentages in the lower part of the table are from Special Eurobarometer 376, a European study on gender inequality

<table>
<thead>
<tr>
<th></th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Totally agree</th>
<th>Do not know</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers, under 35</td>
<td>6,0</td>
<td>19,5</td>
<td>51,9</td>
<td>17,3</td>
<td>5,3</td>
<td>25,5</td>
<td>69,2</td>
</tr>
<tr>
<td>Managers, 50+</td>
<td>3,9</td>
<td>17,0</td>
<td>58,8</td>
<td>18,3</td>
<td>2,0</td>
<td>20,9</td>
<td>77,1</td>
</tr>
<tr>
<td>Finns, under 35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32,4</td>
<td>67,6</td>
</tr>
<tr>
<td>Finns, 50+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22,1</td>
<td>77,3</td>
</tr>
<tr>
<td>Europeans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td>68</td>
</tr>
</tbody>
</table>

*The figures represent TEK or SEFE members who work in middle management. Out of 664 respondents, 133 were under the age of 35 and 153 were 50 and over.

*The percentages are from Eurobarometer 2012. From all 47 EU member states, 26 856 European citizens participated of whom 1007 were Finnish. Out of the respondents, 208 were under 35 years and 598 were 50 years and over.

The above table shows that across all observed groups, the majority of respondents agree that women have less freedom because of family responsibilities. Older middle managers (77,1%), agree somewhat more with the statement than younger ones (67,6%). The same can be observed in Eurobarometer’s study; 77,3% of older Finns agree with the statement, whereas the respective percentage for younger Finns is 67,5%. Overall Europeans are closer to the answers of younger Finns and younger managers, 68% agree with the statement. A seemingly small change in beliefs both among managers and Finns surveyed by the Eurobarometer, can also be observed.

Table 30  Percentual division of middle managers who agree and disagree with the statement: The business community is dominated by men who do not have sufficient confidence in women. The percentages in the lower part of the table are from Special Eurobarometer 376, a European study on gender inequality

<table>
<thead>
<tr>
<th></th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Totally agree</th>
<th>Do not know</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers, under 35</td>
<td>14,3</td>
<td>36,1</td>
<td>29,3</td>
<td>10,5</td>
<td>9,8</td>
<td>50,4</td>
<td>39,8</td>
</tr>
<tr>
<td>Managers, 50+</td>
<td>7,8</td>
<td>26,1</td>
<td>38,6</td>
<td>24,2</td>
<td>3,3</td>
<td>33,9</td>
<td>62,8</td>
</tr>
<tr>
<td>Finns, under 35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30,7</td>
<td>68,2</td>
</tr>
<tr>
<td>Finns, 50+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27,2</td>
<td>70,3</td>
</tr>
<tr>
<td>Europeans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>76</td>
</tr>
</tbody>
</table>

*The figures represent TEK or SEFE members who work in middle management. Out of 664 respondents, 133 were under the age of 35 and 153 were 50 and over.

*The percentages are from Eurobarometer 2012. From all 47 EU member states, 26 856 European citizens participated of whom 1007 were Finnish. Out of the respondents, 208 were under 35 years and 598 were 50 years and over.

From the above table it is possible to distinguish a clear difference in managers’ agreement to the statement: the business community is dominated by men who do not
have sufficient confidence in women. Only 39.8% of younger managers agree with the statement in comparison to 62.8% of older managers. Older managers are more than twice as likely to **totally agree** with the statement as younger ones. When comparing all groups simultaneously, younger managers agree more than 20% less with the statement than any other group. There is no clear difference between the level of agreement to the statement between younger (68.2%) and older Finns (70.3%). On average Europeans are somewhat more likely to agree with the statement than Finns in general. Among managers it is possible to see distinct differences in perceptions regarding the statement, since 39% of younger managers agree implying that the dominance of men who do not have confidence for women is felt less by younger managers. The same differences cannot be noted among Finns in general.

**Table 31** Percentual division of middle managers who agree and disagree with the statement: Women do not always have the necessary qualities and skills to fill positions of responsibility. The percentages in the lower part of the table are from Special Eurobarometer 376, a European study on gender inequality

<table>
<thead>
<tr>
<th></th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Totally agree</th>
<th>Do not know</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers, under 35a</td>
<td>56.4</td>
<td>33.1</td>
<td>6.8</td>
<td>0.0</td>
<td>3.8</td>
<td>89.5</td>
<td>6.8</td>
</tr>
<tr>
<td>Managers, 50+</td>
<td>60.1</td>
<td>27.5</td>
<td>9.8</td>
<td>0.0</td>
<td>2.6</td>
<td>87.6</td>
<td>9.8</td>
</tr>
<tr>
<td>Finns, under 35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>88.1</td>
<td>11.9</td>
</tr>
<tr>
<td>Finns, 50+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>80.8</td>
<td>18.1</td>
</tr>
<tr>
<td>Europeans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>76</td>
<td>21</td>
</tr>
</tbody>
</table>

The figures represent TEK or SEFE members who work in middle management. Out of 664 respondents, 133 were under the age of 35 and 153 were 50 and over.

The percentages are from Eurobarometer 2012. From all 47 EU member states, 26 856 European citizens participated of whom 1007 were Finnish. Out of the respondents, 208 were under 35 years and 598 were 50 years and over.

The last table of sub hypothesis 3.2 looks into whether respondents think that women do not always have the necessary qualities and skills to fill positions of responsibility. Table 31 shows little variability across the observed groups, only a small minority in all groups agrees with the statement. The percentage of agreement is somewhat higher for Finns in general: 11.9% of younger versus 18.1% of older Finns agree with the statement. Again on a European level, respondents are more skeptical regarding women’s skills considering that 21% agreed with the statement that women do not necessarily have the needed skills for advancement. In this case no clear differences can be seen between younger and older managers.

In the first two statements, differences can more or less be observed. The noted difference in middle managers’ beliefs about women having less freedom because of
their family responsibilities is rather small. A larger difference is observed in regards to the statement that the business community is dominated by men who do not have sufficient confidence in women. Here, older managers agree with the statement over 20% more often than the younger ones. In the final statement concerning women lacking qualities and skills, no distinct difference could be observed and a marginal percentage agreed with the statement. Because of these somewhat vague results, except for the second statement, sub hypothesis 3.2 can only partially be confirmed.

6.3.3. **SH 3.3 – Men’s role at work and at home**

The final sub hypothesis looks at whether respondents believe that it is normal that men work more outside the home and participate less in domestic work than women. The first table focuses on work outside of home.

<table>
<thead>
<tr>
<th></th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Totally agree</th>
<th>Do not know</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers, under 35 a</td>
<td>25,6</td>
<td>27,1</td>
<td>33,8</td>
<td>6,0</td>
<td>7,5</td>
<td>52,7</td>
<td>39,8</td>
</tr>
<tr>
<td>Managers, 50+ a</td>
<td>23,5</td>
<td>38,6</td>
<td>26,1</td>
<td>5,9</td>
<td>5,9</td>
<td>62,1</td>
<td>32,0</td>
</tr>
<tr>
<td>Finns, under 35 b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>41,0</td>
<td>55,9</td>
</tr>
<tr>
<td>Finns, 50+ b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60,6</td>
<td>37,4</td>
</tr>
<tr>
<td>Europeans b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>48</td>
</tr>
</tbody>
</table>

The figures represent TEK or SEFE members who work in middle management. Out of 664 respondents, 133 were under the age of 35 and 153 were 50 and over. aThe percentages are from Eurobarometer 2010. From all 47 EU member states 26 470 European citizens participated of whom 1032 were Finnish. Out of the respondents, 195 were under 35 years and 604 were 50 years and over.

From the above table, one can see that a higher percent of younger managers (39,8%) agree that it is normal that men work more than older managers (32,2%). The same difference can be seen among Finns in general, however Finns agree with the statement slightly more than managers. Europeans are more divided in their beliefs, almost as many respondents agree as disagree with the statement. The next table will focus on whether it is considered normal that men participate less in domestic work.
Table 33  Percentual division of middle managers who agree and disagree with the statement: Do you think it is normal that men participate less in domestic work than women? The percentages in the lower part of the table are from Special Eurobarometer 376, a European study on gender inequality

<table>
<thead>
<tr>
<th></th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Totally agree</th>
<th>Do not know</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers, under 35</td>
<td>32,3</td>
<td>39,3</td>
<td>21,8</td>
<td>2,3</td>
<td>5,3</td>
<td>71,6</td>
<td>24,1</td>
</tr>
<tr>
<td>Managers, 50+</td>
<td>34,0</td>
<td>36,6</td>
<td>22,9</td>
<td>3,3</td>
<td>3,3</td>
<td>70,6</td>
<td>26,2</td>
</tr>
<tr>
<td>Finns, under 35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22,1</td>
<td>75,9</td>
</tr>
<tr>
<td>Finns, 50+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19,2</td>
<td>79,8</td>
</tr>
<tr>
<td>Europeans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>48</td>
</tr>
</tbody>
</table>

The figures represent TEK or SEFE members who work in middle management. Out of 664 respondents, 133 were under the age of 35 and 153 were 50 and over.

The percentages are from Eurobarometer 2010. From all 47 EU member states 26 470 European citizens participated of whom 1032 were Finnish. Out of the respondents, 195 were under 35 years and 604 were 50 years and over.

In table 32 it is possible to see that around a quarter of managers agree that it is normal that men participate less in domestic work than women. Finns surveyed by Eurobarometer show the opposite results; more than 75% of younger Finns and almost 80% of older Finns agree with the statement. Europeans are again more divided in their opinions.

Based on the above results, hypothesis 3.3 cannot be confirmed. Although in both cases less than half of middle managers agreed with the statements, there was no considerable difference among younger and older managers. For the first statement it was even the opposite: 7,6% more younger managers than older ones thought it was normal that men work more outside of the home. Regarding the normality of men taking up a smaller part of domestic work, older managers were slightly more declined to agree, however the great difference was observed between the beliefs of managers and Finns in general, Finns agreed 50% more with the statement than managers.

6.3.4. Summary of hypothesis 3

Based on the results it cannot be confirmed that there are difference in beliefs regarding women’s roles among younger and older middle managers, thus the third hypothesis on norms and beliefs cannot be accepted. The younger generation of middle managers does not seem to be less conservative in their beliefs than older managers; rather in some of the observed statements younger managers are more conservative than older ones.
7 DISCUSSION AND CONCLUSIONS

In this chapter focus shifts to what reasons may lie behind the findings. Results from each one of the hypotheses are discussed separately and in reference to what effect they may have on the low proportion of women in senior management in Finland. This is followed by conclusions of the study where the research questions are answered.

7.1. Career ambition and perceptions

The results show that male and female middle managers differ in their career preferences to some extent. Female managers are less willing to consider promotions and have lower career ambitions than male managers i.e. significantly less women than men aim to achieve CEO and vice president positions compared to men. Yet a majority, over 80% of female managers are willing to consider a promotion and over 70% aspire to achieve executive management positions or higher. Gender differences are observable across all age groups but are more pronounced for managers between 35-49. This may partially be due to female managers having more preferences for children and family. However, no significant difference can be observed between women with and women without children in regards to aspiring for an executive management and senior executive management positions, therefore family preferences are not sufficient in explaining the lower number of women striving for these positions.

Commonly perceived reasons for the above observed gender differences include, among other factors, that women are less self-confident in their abilities, are not interested in responsible positions and decline promotions more than men (see e.g. Talouselämä 4/2013, Niederle and Vesterlund, 2007, Europe’s Institute of Leadership & Management,2011). These reasons do not seem to hold for Finnish female managers who show confidence in their abilities, take an active approach to career planning and have previously accepted and declined promotions in the same extent as male middle managers. Almost 90% of female managers are confident that they have the needed skills and abilities for further career advancement to senior level positions or higher. The question of interest thus becomes; why do women have lower career ambitions than men if women themselves believe to have the skills required to achieve top positions?

Niderle and Westerlund (2007) find that men have more preferences for performing in competitions than women. This is also backed by a series of studies within the field of
psychology suggesting that men are more competitive than women (Campbell, 2002). Niderle and Westerlund (2007) find that while men embrace competition, women shy away from it, which can help to explain the absence of women in top-level positions. Another reason why women may not select into top-level positions is because they do not enjoy the responsibility that comes along with the title, and instead choose specialist positions in which they are both challenged and respected by others. Alternatively, it may be that women are less willing to make the necessary sacrifices in order to take on more responsibility. These sacrifices may include long working hours, which conflict with the desire or necessity of child rearing. This will be further discussed in the following chapter 7.2 on family and work. Hudson (2011) suggests “Women may be internalizing a message that the very top positions are beyond their reach”. On the one hand, discrimination or anticipated discrimination may have the impact that men and women hold different positions. On the other hand, the lack of female role models and mentors may impact women are more hesitant to go for positions of power.

7.2. Family and work

When looking at the actions female managers after having children compared to male managers, it is possible to observe gender differences in preferences. Female managers show more preferences towards family than male managers. These differences can be due to women naturally having more preferences (i.e. maternal instincts) for childrearing; however, preferences can also be influenced by social norms and institutional factors.

The results indicate that having children does not in general impact the desire for career advancement for middle managers. When asked, less than a third of middle managers state that they have altered their career goals in order to balance family and work. No significant gender difference is found, yet women significantly more often than male managers compromise on their career targets in order to balance family and work. Female managers also significantly more often take the primary responsibility of both household and childcare than male managers. In other words, having children seems to impact the careers of men and women differently. Both male and female managers work almost equal hours before having children and although managers in general work fewer hours a couple years after children are born, female managers end up working significantly less than male managers. The uneven impact of having
children is further emphasized by Smith et al. (2012) who find that having children has a positive effect on the promotion chances of men, but no effect on women’s promotion chances.

Similarly, having children more often results in a career slowdown for female managers compared to male managers, nevertheless, this slowdown is in most cases voluntary. The fact that female managers take the majority of parental leaves has an impact on the slowdown; the median for female managers is 24 months and for male managers, while median for male managers is 1-2 months. As much as 33% of male managers take less than a month off as paternity leave. This may be due to women’s preferences, however economic incentives can also affect the decision of how to divide parental leave. If one parent earns more and therefor gets lower leave compensation, there is an incentive for the parent who earns less to take the majority of leave. Managers in this sample confirm the classical pattern that women marry same level or upwards, while men marry down. This means that women often marry men who are at a higher organizational level than themselves, which in turn may have the impact that women end up taking the main responsibility of childcare. Hereby, women taking the main responsibility of childcare and paternal leave may not be due to preferences explicitly, it may simply be the most practical and financially sound solution.

Another issue contributing to the career slowdown that women experience is that a majority of day care centers have limited opening hours, which affects work flexibility, or more specifically the actual hours managers can physically spend at the office. The Equality Barometer (Kiianmaa, 2012) shows that Finnish men and women are quite even in regards to who carries main responsibility of taking children to day care and school. Female managers, on the other hand, are twice more likely to carry the responsibility than men, especially picking children up from day care and school was clearly more often left to female managers (40% vs. 15%). This means that female managers in particular are affected by the limited opening hours. Bonke et al. (2003) find that this inflexibility has a negative effect on wages in Denmark, especially in the higher end of the wage distribution. The limited opening hours of daycare facilities also mean that families with long work days or irregular working hours need to use outside help in order to manage their everyday life. However, only one in every four middle managers use childcare help (e.g. nannies, au pairs), yet almost 60% find the importance of domestic help to range from somewhat important to very important. Getting regular help from grandparents may be a partial reason for the relatively low
use of childcare help; nonetheless, this is only an option if grandparents live close by. Another plausible reason is that families cannot always afford to get the needed help, since taxes and minimum wages in Finland are high compared to many other countries.

The preferences men and women have towards family and career can more or less be affected by the way society is structured. As already mentioned above, Finnish women take long maternity leaves. The possibilities and restrictions that a society provides can lead women to feel like they are doing something wrong in case they do not follow the expected patterns (Huntington, 2010). In this way the societal structure can impact or create individual’s preferences to the extent that individuals strive to do what is right and thus avoid disapproval from not living up to one’s own and others’ expectations.

The rules surrounding parental leave can help to create a situation where it is often the woman who takes a majority of the leave period. Consequently, it becomes a norm that women take most of the leave, which affects employers’ expectations of the length of maternity leaves. At the same time it also becomes more or less a norm that men do not take much paternity leave, which also affects employers’ expectations. The Equality Barometer 2012, published by the Social and Health Ministry, finds that in nine out of ten workplaces women are not considered to have any difficulties taking almost a yearlong maternity leave. For men it was considered relatively easy to take three weeks of paternity leave. On the contrary, respondents considered it to be more difficult for men than women to take parental leave while the child had not yet turned three, especially in the private sector where only 48% considered it to be easy. For women the respective number was 70%. To further emphasize these differences, Albrecht et al. (1999) and Smith et al. (2012) have found that men are punished in terms of lower wages and worse promotion opportunities when they take beyond 14 days of paternity leave. Women on the other hand are not punished, since it is expected that they take longer leaves. This is also consistent with the statistical discrimination theory. Hereby, it can be concluded that society helps to create the basis for some behavioral patterns that influence the actions of the general population.

### 7.2.1. Implications for the proportion of women in senior management

Next the focus shifts to how gender differences in middle managers’ preferences towards career and family may explain the low proportion of women observed in senior management in Finland. From the previous two chapters, one can see that men tend to show greater preferences for career making than women, while women on average have
more preferences towards family. These differences may lead to women not having the will to signal their skills and/or not having the same opportunities to signal. This in turn leads to women not being considered as potential candidates when promotion decisions to senior levels are made.

DJOF (2008c) finds that management positions are often filled by other means than making the positions public. Further, they conclude that employers often fill vacant positions on the basis of habits and behavioral patterns that simply do not lead to an increase of women in senior management. Also, if people who make promotion decisions have traditional beliefs that successful leaders have masculine characteristics, then women may be overlooked. In case female characteristics are not valued as highly as male characteristics when filling a management position, all other things equal, men are considered more qualified solely due to their gender (Schein, 2001).

An alternative explanation is that women send fewer signals about their abilities than men and sending signals is often required in order to reach senior management. In order to send signals one must have both opportunities and the will to do it. Finnish women take long periods away from the labor market in connection to childbirth but also seem to carry large responsibility for small children, which limits the ability to signal but also the will to signal. Results suggest that the lower signaling frequency by women is temporary while children are small. However, it may be difficult to return to the fast lane after having children, due to a loss in human capital and/or if it is not possible to allocate as much time and effort to career advancement than before having children. Hereby, women do not use their full potential, giving men the advantage of a head start in the so-called race to the top. According to Bjerk's theory this leads to gender differences in promotions. If men, at least temporarily, send more signals than women while at the same time employers require fewer signals from men, then those who decide over promotions are able to decode men's signals faster. Thus, this difference in signaling intensity, according to the theory would mean that it takes longer for women to be promoted to vice-president positions. This in turn makes it less likely that women are later promoted to CEO level, considering that there is a limited amount of years to one's professional career (Smith et al., 2012).

7.3. Norms and beliefs

The results indicate that Finnish middle managers have some traditional or stereotypical beliefs regarding women's roles, career interests and opportunities. In
some aspects, managers seem to be more conservative than Finns in general, whose beliefs have been studied by Eurobarometer (2010, 2012). The Eurobarometers find that older Europeans and Finns are more conservative in their opinions regarding female leadership and female roles than younger ones. These differences in beliefs and attitudes cannot be observed among younger and older managers. Plausible reasons for the observed differences as well as the effect norms and stereotypical beliefs may have on preferences and the low proportion of women in senior positions will be discussed next.

Some of the results indicate that younger managers are not less traditional in their beliefs than older managers, especially regarding women’s interests of responsible positions. One would expect similar types of differences in attitudes among middle managers as the one that can be observed among Finns in general, considering that women's socio-economic situation has improved in the past decades. Women today are better educated and have better employment and career development opportunities than before, which are effected by the availability of childcare, length of parental leave and compensation rates but also the societal culture, which has changed in favor of women. Younger generations also, in general, tend to be more liberal than older ones. Why then are managers so critical towards women’s career interests and why are there not any observable belief differences among managers?

A plausible explanation for older managers’ conservatism is that they have experienced how difficult it is to take the main responsibility of children, managing everyday life while simultaneously striving for career advancement. Around 30 years ago there was no guarantee of a day care spot for children and in order for women to focus on their careers they either needed outside help or helpful parents and/or a husband. It could also be difficult to focus on career advancement, while having small children in day care, considering how often small children are sick. While young managers’ children today are guaranteed a spot in day care, women still have the main responsibility for childcare and household, which limits how much time and effort can be allocated to career advancement while children are small. However, 97% of female managers under 35 are willing to consider taking more responsibility, which suggests that they themselves differ from how they consider women in general to act.

The RISC-monitor research (TNS Gallup, 2011), which focuses on mapping the values and attitudes of Finns, finds that young Finns have traditional values about gender roles, family and home. A majority of Finns, 54%, want to concentrate more on friends,
family and leisure instead of working excessively. This tendency is found across all age groups but it is especially strong among younger women. The results also show that prioritizing motherhood over career is becoming more widespread. The return of old-fashioned values may also impact younger managers’ opinions about the career interests of women.

A reason for the observed differences in beliefs between managers and Finns in general can be due to the fact that Finns do not in the same extent have first-hand experience of what it takes to balance a demanding job while at the same time being in charge of everyday family life. When asking on a general level, without taking life situation and experience into account, it is natural that women want everything that men do.

Although the results show that younger Finns tend to be less traditional in their beliefs than older ones, Finns still have some traditional norms and beliefs. These norms can be affected by societal structure, which may impact individuals’ actions. For example, in the case maternity leave is prolonged, women tend to take longer leaves. This in turn becomes more acceptable, while it becomes less acceptable to take shorter leaves. The same applies to day care institutions where earlier closing hours may lead to it being less acceptable to pick up children later. According to Huntington (2010) major life decisions such as how many children to get, how long maternity and paternity leaves to take in addition to everyday decisions such as how to discipline children and how to divide housework are largely affected by social norms.

7.3.1. Implications for the proportion of women in senior management

Next, attention is directed at what effect traditional attitudes and norms may have on the low proportion of women in senior positions in Finland. It can be observed that there exists a widespread view of women being less interested in responsible positions and less willing to fight for their careers than men both among middle managers and Finns surveyed by the Eurobarometers (2010, 2012). This suggests that Finns to some extent believe that the low proportion of women in top positions is due to women themselves. These types of beliefs may act as a barrier for women who are in fact interested in responsible positions. It can be problematic to hire women in case it is difficult (costly) for employers to observe whether women are committed to making a career for themselves. It is easier to employ a man, who can be considered a risk free option (Banke & Hansen 2010). When an employer is about to hire or promote a new CEO there is a risk that he or she does not believe that female candidates are equally
interested in the positions as male candidates. This in turn means that women need to send more signals about their will to become leaders than men since they otherwise run the risk of becoming victims of the general holding that they do not want responsibility.

Traditional norms and beliefs do not only affect employers but they can also have an impact on women themselves. Norms regarding women's roles also affect how families structure their everyday life, and how they achieve work and family balance (Huntington, 2010). Almost half of the Finns surveyed by Eurobarometer (2010) agree that women with young children should prioritize family over their careers. If men and women have traditional beliefs that men are assigned the role as breadwinners while women should be homemakers, it can lead to women making career compromises in order to live up to these norms.

7.4. Suggestions for further research

In this study Finnish middle managers have been surveyed about career related matters in order to distinguish gender differences, which could explain the observed promotion disparities. Due to resource constraints, the role and importance of networking, mentorships and role models was ignored in the empirical part, although previous literature has found the above factors to be important in regards to promotion possibilities. Future research could focus on studying the role of these factors; whether it is possible to distinguish gender differences in regards to the factors and what the impact of observed differences may have on promotions to executive level or higher.

Since the study only focuses on middle managers, another possibility would be to survey successful women who have already been promoted to executive or senior executive management positions, in order to gain a deeper understanding about the underlying factors behind their success. For example, have these women always aspired to reach top management positions? How have these women balanced family life and their career? It would of interest to see whether the successful women share common characteristics, career patterns etc. Not only would it be of interest for women who aspire to reach top management positions but it also helps to shed light on the low proportion of women in top management.
7.5. Conclusions

The purpose of this study was to explain why there are so few women promoted into top management positions. To reach the aim of the study, relevant literature regarding statistical discrimination and gender differences in relation to promotions was reviewed. A framework around statistical discrimination was developed based on Bjerk’s promotion model, which states that in case there is a gender difference in abilities, signaling accuracy or signaling opportunities, it may lead to one group being less likely to reach top management positions, although no competence differences exist. In reference to these three groups, parameters, which may impact men’s promotion opportunities more favorably than women’s opportunities, were further examined. Factors that are identified to affect skill signaling include education and work orientation, gender stereotypes and societal structure. The precision with which men and women signal is found to be impacted by communication style, upbringing and activities one engage in while young but also the availability of role models and mentors. Factors that are recognized to affect signaling opportunities include networking and access to networks, societal structure, time allocation, norms and preferences.

In the empirical part Finnish men and women in middle management were questioned about career and family related preferences and stereotypical beliefs. The conclusions of the study are presented below.

RQ 1: Do Finnish men and women in middle management differ in their career and family related choices and preferences?

The results suggest that male managers have more preferences towards their careers than female managers, who in turn have more preferences towards children and family. More specifically, male managers are more ambitious in their career aspirations; they aim to achieve higher organizational levels and are more willing to take on more responsibility than women. There is however no difference in what organizational level female managers with and without children aim to achieve, meaning that managers with children do not aspire higher than managers without children. The results also show that the ambition differences are not explained by female managers having lower self-confidence in their skills than male managers.

Having children does not permanently impact the desire for career advancement for middle managers. Less than a third of middle managers had altered their career goals
in order to balance family and work and although no significant gender difference in the statement could be found, having children impacts the career of female and male managers differently. Female managers are more likely to compromise on their career targets in order to achieve work family balance, which is reflected in women taking a majority of parental leave and the main responsibility of childcare and household obligations. This also leads to female managers being more likely to face a career-slowdown up to five years after having had children; however this slowdown is a voluntary decision in most cases.

RQ 2: Do Finnish men and women in middle management have stereotypical beliefs regarding female roles and leadership and are there age dependent differences in beliefs among middle managers?

The results suggest that Finnish middle managers and Finns in general have somewhat traditional beliefs, especially regarding women’s interests in responsible positions and their will to fight in order to make a career for themselves. Although the latter part of the research question does is not informative in regards to why there are currently few women in top positions, it still gives interesting insights about possible future development of attitudes and beliefs regarding female leadership and roles.

While results suggest that the younger generation of Finns, surveyed by the Eurobarometer, is less conservative in their beliefs regarding female roles and interests than the older generation of Finns, the same cannot be observed among middle managers. Especially when it comes to managers’ opinions about women’s interest in responsible positions and career making, no differences can be observed between younger and older managers. Apart from the possibility that younger managers’ beliefs can change and become less conservative when they become older, considering that today’s young middle managers are the future leaders and the ones deciding who gets promoted, these types of beliefs may act as a barrier for women in the future who in fact are interested in responsible positions. This in turn implies that women would also in the future need to send more signals about their will to become promoted than men.

In the study it has been assumed that women’s actions reflect their preferences, yet societal structure and social norms can also impact preferences and the choices women make. Norms affect what people believe is acceptable and the choices women make. It is therefore plausible that norms together with the societal structure, especially the family friendly policies in Finland, influence and explain preference disparities among
male and female managers. Preferences, societal structure and norms all seem to affect the signaling intensity of men and women, which ultimately may contribute to explaining why women are not promoted into senior management positions in the same extent as men are.
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Appendix 1 Finnish middle managers’ career ambitions and preferences

### Background information

1. What is your gender? *
   - Male
   - Female

2. Select your age range *
   - Under 30
   - 30-34
   - 35-39
   - 40-44
   - 45-49
   - 50-54
   - 55-59
   - 60 and over

3. Select your highest level of completed formal education *
   - Bachelor’s degree
   - Master’s degree
   - Doctoral degree

4. Select your primary field of education *
   - Business
   - Engineering
   - Other, what?

5. Indicate the industry in which you are currently employed? *
   - Oil and gas
   - Basic materials
   - Industrial goods and materials
   - Consumer goods
   - Health care
   - Consumer services
   - Telecommunications
   - Utilities
   - Financials
   - Technology
   - Other, what?

6. Indicate the size of your organization in terms of employees? *
   - 0-50
   - 51-250
   - 251-500
   - 501-1000
   - 1001-

7. Indicate your current organizational level *
   - Lower middle management
   - Upper middle management
   - Other, what?

8. What is your working title? *

9. How many years have you been at your current organizational level in your company? *

10. Select the following organizational function(s) from which you have formal management experience, where you have been responsible for operations or large scale projects, and indicate
   - Personnel
   - Finance
   - Legal matters
   - Communication
   - Marketing
   - Sales
   - Administration
   - Research & Development
   - Operations
   - Other, what?
11. Indicate your marital status *
   - Unmarried
   - Married/cohabiting
   - Divorced/widowed (not re-married)

12. Choose the option that best describes your partner’s work status/organizational level in
   - My partner is at a lower organizational level than me
   - My partner is at the same organizational level as me
   - My partner is at a higher organizational level than me
   - My partner does not (currently) work

**Career ambitions and perceptions**

13. Are you willing to consider a job with more responsibility and higher pay (henceforth: No
   - Yes

14. What is the highest organizational level position that you aim to achieve? *
   - Lower middle management
   - Upper middle management
   - Executive management (e.g. marketing, human resources, IT, financial director)
   - Senior executive management (CEO, vice president)

15. Have you accepted promotions in your current organization? *
   - No, I have not been proposed any
   - Yes, once
   - Yes, more than once

16. Have you declined promotions in your current organization? *
   - No, I have not been proposed any
   - No, I have accepted promotions
   - Yes, once
   - Yes, more than once

17. In what phase would you evaluate your career to be in? *
   - Lowering
   - Stable
   - Moving temporary horizontally in order to move forward
   - Rising

18. Indicate your degree of agreement/disagreement with each of the following statements *

<table>
<thead>
<tr>
<th>Statement</th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Totally agree</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) I have a clear career target</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>b) I am confident that I will achieve my career</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>c) I am continuously on the lookout for career advancement opportunities</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>d) I have the needed skills and abilities for further career advancement to senior level positions or higher</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>e) I have not consciously planned my career</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Networking, mentorships and role models**

19. Do you participate in social, career advancing activities (i.e networking) outside of the work setting with your colleagues and/or business contacts? (multiple options can be chosen) *
   - No, I am not interested
   - No, I do not have the time
   - No, I am not invited
   - Yes, How often?

20. To what kind of social activities, loosely related to work, do you participate in? *
    - Luncheons
    - Dinners
    - After work drinks
    - Cultural activities (e.g. plays, exhibitions)
    - Physical activities (e.g. golf, skiing, hunting)

21. Please comment, if you have any additional thoughts and/or experiences from networking or
22. Do you have (or have had) a mentor? *
   ○ No
   ○ Yes, a female mentor
   ○ Yes, a male mentor
   ○ Yes, several mentors who have been mostly female
   ○ Yes, several mentors who have been mostly male

23. Have you received new job offerings with the help of a mentor? *
   ○ No
   ○ Yes

24. Do you have a person that you consider to be a role model in a top position in your organization?
   ○ No
   ○ Yes

25. Select the gender of the person that you consider to be a role model? *
   ○ Male
   ○ Female

26. Rate the following factors based on how important they are for future career advancement

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not at all important</th>
<th>Somewhat important</th>
<th>Important</th>
<th>Very important</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Networking and socializing outside of work</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>b) Having a mentor</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>c) Having a mentor of the same gender</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>d) Having a role model highest levels of the organizational hierarchy</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>e) Having a same-gender role model highest levels of the organizational hierarchy</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

27. Family and work

27. How many children do you have? *
   ○ 0
   ○ 1
   ○ 2
   ○ 3
   ○ 4 or more

28. At what age did you get your first child? * _ _ _

29. How old is your youngest child? _ _ _

30. How much time have you taken off work for family leave (maternity or paternity leave, parental leave and care leave) in total during your career? * _ _ _

31. How much time have the father/mother of your children taken off work for family leave (maternity or paternity leave, parental leave and care leave) in total during his/her career? * _ _ _

32. Has having children permanently altered your career goals? *
   ○ No
   ○ Yes

33. Please comment in what way having children has altered your career goals? _ _ _

34. Select the following that best corresponds to your experiences up to couple years after having had
   ○ Having children has voluntary slowed down my career advancement
   ○ Having children has involuntary slowed down my career advancement
   ○ Having children has not slowed down my career advancement

35. Approximately, how many hours have you been working a week *

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Less than 37 hours</th>
<th>Between 37-44 hours</th>
<th>Between 45-60 hours</th>
<th>More than 60 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Before having children</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>b) 0-5 years after having had children</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
36. Have you or your partner had to compromise on your career target in order to balance work and family life? Select the option that best describes your experiences *

○ No, we have not had to make career target compromises
○ Yes, I have had to make career target compromises while my partner’s career has taken first priority
○ Yes, my partner has had to make career target compromises while my career has taken first priority
○ Yes, we have both had to compromise on our career targets

37. Have you used any of the following form(s) of domestic help in order to balance family and work
Childcare help (e.g. nannies, au pairs)
Cleaning help
Other forms of help (e.g. laundry)
I have not used domestic help

38. How important has domestic help been for you in order to balance family and work? *

○ I have not used domestic help/ not at all important
○ Somewhat important
○ Important
○ Very important

39. Indicate who normally takes and picks up the child/children from daycare, school etc. *

<table>
<thead>
<tr>
<th></th>
<th>Me</th>
<th>My partner</th>
<th>50/50 me and</th>
<th>A third person</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Dropping off</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>b) Picking up</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

40. Estimate the time allocation on childcare between you and your partner in percentages adding up to 100%
(e.g. me 60%, partner 40%)

Me _ _ _
Partner _ _ _

41. Estimate the time allocation on housework between you and your partner in percentages adding up to 100%
(e.g. me 60%, partner 40%)

Me _ _ _
Partner _ _ _

Norms and beliefs

42. In Finland, men are more likely than women to hold positions of responsibility. Indicate to what extent you agree or disagree with each of the following statements. *

<table>
<thead>
<tr>
<th>Statement</th>
<th>Totally disagree</th>
<th>Tend to disagree</th>
<th>Tend to agree</th>
<th>Totally agree</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Women are less interested than men in positions of responsibility</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>b) Women are less willing than men to fight to make a career for themselves</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>c) Women have less freedom because of their family responsibilities</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>d) The business community is dominated by men who do not have sufficient confidence in women</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>e) Women do not always have the necessary qualities and skills to fill positions of responsibility</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

43. Do you think it is normal that men work more than women? *

○ Totally disagree _ _ _
○ Tend to disagree _ _ _
○ Tend to agree _ _ _
○ Totally agree _ _ _
○ Do not know _ _ _

44. Do you think it is normal that men participate less in domestic work than women? *

○ Totally disagree _ _ _
○ Tend to disagree _ _ _
○ Tend to agree _ _ _
○ Totally agree _ _ _
○ Do not know _ _ _

45. In general, do you believe that men and women in Finland have equal advancement opportunities to the highest corporate positions? Why/why not? _ _ _

Please leave your contact information, if you want to participate in the lottery of an Ipad Mini
Name
Address
Email
**Appendix 2.** Percentual division of women with and without children and the organizational level that they aspire to reach

<table>
<thead>
<tr>
<th>Women</th>
<th>Middle management</th>
<th>Executive management</th>
<th>Senior Executive management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>23,4</td>
<td>53,4&lt;sup&gt;a&lt;/sup&gt;</td>
<td>23,4&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>No children</td>
<td>30</td>
<td>52,2&lt;sup&gt;a&lt;/sup&gt;</td>
<td>17,7&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Total</td>
<td>26,7</td>
<td>52,8</td>
<td>20,55</td>
</tr>
<tr>
<td>Z-value</td>
<td>1,814</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-value</td>
<td>0,404</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>z=0,1078 p=0,9141  <sup>b</sup>z=0,4700 p=0,6383