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Retention of women in IT industry

The role of job satisfaction and inclusive organizational practices

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ABSTRACT:

In the IT sector, diversity issues are globally related to gender diversity, meaning the lack of women in the IT sector. The importance of diversity is acknowledged and many IT companies has set goals to narrow down the gender gap. Also, previous research has been conducted on how to attract more women into the IT field. However, the turnover of women in the IT sector is still high and little is known about how women could be retained as employees. Therefore, the main goal of this thesis is to understand, whether management of job satisfaction could help to retain female employees in the IT industry. Also, the relationship between job satisfaction and inclusive organizational practices is investigated.

The theoretical framework of the thesis is based on previous studies on the diversity of the IT industry and job satisfaction and retention. In addition, the theories about job satisfaction are presented, concentrating mainly on Hertzberg's two-factor theory. Also, the terms diversity, gender, retention, and inclusion are defined.

Data used in this study is collected from employees who identify as female or non-binary (N=79). In addition, the employees work in multinational IT company X within the two country units, one in Finland and one in Poland. The data was gathered with self-administrative, web-based questionnaire and analyzed using means to understand the average state of job satisfaction, implementation of inclusive organizational practices, and importance of inclusive organizational practices. In addition, the hypotheses were tested by using independent samples t-test, linear regression analysis, and two-way ANOVA.

The results show that high job satisfaction has a positive effect on the retention of women in the IT industry, and that regardless of the cultural environment, women who perceive highly inclusive organizational practices to be well implemented in the organization have higher job satisfaction than women who perceive highly inclusive organizational practices to be poorly implemented. However, there is no significant relationship between implementation of highly inclusive organizational practices and intended retention time. In addition, it was noted that the length of the experience in IT field does not affect to the intended retention time.

Based on the results of this thesis, it may be suggested that IT companies should pay attention to the women's job satisfaction in order to retain them as employees. Further, it is suggested that organizations should investigate how well employees perceive that inclusive organizational practices have been implemented in the organization, because well implemented highly inclusive organizational practices improve women's job satisfaction, and better job satisfaction improves the retention of women in the IT industry.

KEYWORDS: Gender diversity, retention, job satisfaction, inclusion, inclusive organizational practices

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TIIVISTELMÄ:
IT-alan diversiteettihaasteet ovat sidoksissa sukupuoleen, tarkoittaen globaalisti naisten vähäistä määrää IT-alalla. Diversiteetin merkitys on kuitenkin tunnustettu ja monet IT-alan yritykset ovat asettaneet tavoitteita sukupuolten välisen kuilun kaventamiseksi. Lisäksi aikaisemmat tutkimukset ovat keskittyneet siihen, kuinka saada lisää naisia IT-alalle. Naisten vaihtuvuus IT-alalla on kuitenkin edelleen suurta ja siitä, miten naiset voitaisiin säilyttää työntekijöinä, tiedetään vasta vähän. Siksi tämän tutkielman päätavoitteena on ymmärtää, voidaanko naispuolisten työntekijöiden pysyvyyttä IT-alalla parantaa työtyytyväisyyden avulla. Lisäksi tässä työssä tutkitaan työtyytyväisyyden ja inklusiivisten organisaatiokäytäntöjen välistä suhdetta.

Teoreettinen viitekehys pohjautuu aikaisempiin tutkimuksiin IT-alan diversiteetistä sekä työtyytyväisyydestä ja työssä pysymisestä. Lisäksi teoreettisessa viitekehyksessä esitellään työtyytyväisyyteen liittyviä teorioita, keskittyen pääasiallisesti Hertzbergin kaksifaktoriteoriaan. Myös käsitteet diversiteetti, sukupuoli, työssä pysyminen ja inkluusio on määritelty.

Tässä tutkimuksessa käytetty data on kerätty työntekijöiltä, jotka identifioituvat joko naisiksi tai ei-binäärisiksi (N=79). Lisäksi työntekijät työskentelevät IT-alan monikansallisessa yrityksessä X kahden maayksikön sisällä, joista toinen sijaitsee Suomessa ja toinen Puolassa. Data on kerätty itsehallinnollisella verkkopohjaisella kyselylomakkeella ja analysoinnissa on hyödynnetty keskiarvoja työtyytyväisyyden keskimääräisen tilan sekä inklusiivisten organisaatiokäytäntöjen toteuttaminen ja inklusiivisten organisaatiokäytäntöjen merkityksen ymmärtämiseksi. Lisäksi hypoteesien testaamisessa on käytetty kahden riippumattoman otoksen t-testiä, lineaarista regressioanalyysiä ja varianssianalyysia.

Tulokset osoittavat, että korkealla työtyytyväisyydellä on positiivinen vaikutus naisten pysyvyyteen IT-alalla ja että kulttuuriympäristöstä riippumatta naiset, jotka kokevat inklusiiviset organisaatiokäytännöt hyvin toteutetuiksi, ovat tyytyväisempiä kuin naiset, jotka kokevat inklusiiviset organisaatiokäytännöt huonosti toteutetuiksi. Inklusiivisten organisaatiokäytäntöjen implementoinnin ja ennakoidun työssä pysymisen välillä ei kuitenkaan ole merkittävää yhteyttä. Myöskään IT-alan työkokemuksen pituus ei vaikuta suunniteltuun alalla pysymisen aikaan.

Tulosten perusteella voidaan ehdottaa, että IT-alan yritysten tulisi kiinnittää huomiota naisten työtyytyväisyyteen säilyttääkseen heidät työntekijöinä. Lisäksi organisaatioiden tulisi tutkia, kuinka hyvin työntekijät kokevat, että organisaatiossa on toteutettu inklusiivisia organisaatiokäytäntöjä, sillä hyvin implementoidut inklusiiviset organisaatiokäytännöt parantavat naisten työtyytyväisyyttä ja parempi työtyytyväisyys puolestaan parantaa naisten pysyvyyttä IT-alalla.

KEYWORDS: Sukupuolidiversiteetti, työssä pysyminen, työtyytyväisyys, inkluusio, inklusiiviset organisaatiokäytänteet

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1 Introduction

Workforce diversity benefits organizations in multiple ways. A diverse workforce helps organizations to succeed, as the studies show that the innovation mindset is six times higher in the most equal work cultures than in less equal ones. In addition, the employees in the most equal work cultures are less afraid of failure. (Accenture, 2019.) The diversity of skills and experiences also facilitates organizations internationalization as the language skills and cultural understanding in addition to a better understanding of the requirements of the foreign nations may already exist in the company. Furthermore, organizations with a diverse workforce are better to solve problems, as employees from different backgrounds bring different perspectives and individual experiences to propose ideas that flexibly adapt to variable markets and customer demands. (Saxena, 2014; Cletus et al., 2018; Agnihotri & Bhattacharya 2019.)

However, despite the recognition of the importance of diversity, McKinsey's research covering hundreds of companies shows that most have made little progress, stalled, or even slipped backward in terms of diversity of the workforce, and one factor of diversity that is progressing slowly is gender diversity (Dixon-Fyle et al., 2020). The representation of women in management positions is common regardless of industry, but in addition, many organizations struggle with the uneven gender distribution of the entire staff, meaning gender-biased organizations (Panda et al., 2022). However, the challenges of gender-biased organizations differ in female- and male-dominated industries, and female-dominated industries struggle with for example lower wages (Finnish institute for health and welfare, 2022; Crothers et al, 2010) and exhaustion of employees due to labor shortages (Vesalainen, 2021). Male-dominated industries, in turn, struggle with time management and work-life balance. According to Reid et al. (2018), for instance, in male-dominated occupations where work is not organized into shifts, the pressures to put work ahead of family is considerable (Reid et al., 2018).

However, the studies show that men in female-dominated occupations often recognize that the minority status give career advantages for them (Simpson, 2004) while women

in male-dominated industries feel that career advancement in male-dominated professions is challenging (Cardador et al., 2022). In addition, research shows that women working in male-dominated occupations feel pressured to adopt masculine behaviors to gain respect, but when working with women in female-dominated occupations, they feel pressured to adopt feminine behaviors, and such balancing with gender defaults can be emotionally stressful (Cardador et al., 2022). Furthermore, Women in Tech Finland, Mimmit Koodaa, and Tekniikka Akateemiset conducted research for women in technology roles in collaboration with Accenture and the results show that women in technology roles are ambitious, but many find it difficult to succeed in male-dominated IT field. (Women in Tech, 2021.)

In the IT sector, diversity issues are globally related to gender diversity. However, the importance of gender diversity is acknowledged, and the studies have been conducted on how to attract more women into the IT field. According to Haroon et al. (2019), organizations must focus on recruiting women and minorities, but must also commit to creating a cultural shift toward inclusion and diversity, including staff training and policy creation regarding the desired organizational culture. Furthermore, organizations and educational institutions must encourage women to take more technology courses. (Haroon et al., 2019.) However, even if companies could recruit more women, little is known about how they could retain women as employees, presented below.

1.1 Research gap

Multinational IT companies struggle with high turnover rates, for example, the median tenure in Amazon is only one year whereas the median tenure of Google's employee's is 1,1 years (Johnson, 2018). However, high turnover also seems to be a gendered issue, as according to McCain (2022), women leave tech roles 45 percent more than men (McCain, 2022) and according to Needle (2021), women in STEM (Science, Technology, Engineering and Mathematics) careers are more likely to leave their jobs within the first few years than those in non-STEM jobs (Needle, 2021). Some studies have been

conducted on the retention of women in the IT sector, as for example Capital One (2019) conducted a survey of 250 women who had stayed in tech careers for at least eight years and had attained to senior roles (Capital One, 2019) while Vassallo et al. (2016) interviewed over 200 women with at least 10 years of work experience at tech companies (Vassallo et al., 2016). However, as mentioned above, the early years are critical for women to stay in tech companies (Needle, 2021), and the research gap for women who have worked in tech companies for less time still exist. Therefore, it is timely to study the retention of women in the IT sector, including all career stages.

Furthermore, job satisfaction is important when studying job retention, as low job satisfaction leads to turnover (Satpathy et al., 2014), while high job satisfaction makes employees more productive and positive towards their organization (Fazriyah et al., 2018). In addition, Karthikeyani (2020) states that job satisfaction and job retention are the most important factors for the success of a company and that companies that manage to create an attractive and motivating work environment will retain talented employees and achieve better opportunities to succeed in the corporate world (Karthikeyani, 2020). However, the studies on retention and job satisfaction in the IT sector are limited and therefore investigating the relationship between these factors is relevant.

1.2 Research question and objectives

As mentioned above, diversity issues in the IT industry are globally related to gender diversity and multinational IT companies struggle with high turnover rates, and thus the main goal of this thesis is to understand, whether management of job satisfaction could help to retain female employees in the IT industry. Therefore, the relationship between job satisfaction and the retention of women in the IT sector is investigated in order to reveal the crucial factors in terms of retention. The generalized understanding about this relationship is produced via a quantitative analysis based on the data col-

lected through a survey, which analyzes the relationship between job satisfaction and job retention among female employees in IT field. Thus, the research question is as follows:

“Does higher job satisfaction improve women's retention in the global IT industry?”

Also, the relationship between inclusive organizational practices and job satisfaction of women in the IT sector is tested. In addition, it is investigated which inclusive organizational practices women consider most important. Thus, the sub-question of the study is as follows:

“What is the relationship between job satisfaction and inclusive organizational practices among female employees in the global IT industry?”

The survey is conducted among the employees (women) of Finnish IT multinational corporation. The international perspective is considered in the thesis by conducting the study among employees from Poland and Finland. In addition, it will be explored whether the same issues related to women’s retention occurs across countries and cultures.

1.3 Structure of the thesis

The thesis consists of seven chapters. The first chapter is an introduction, which presents the research gap, the research questions and the structure of the thesis. In the second chapter, the theoretical background of the research is discussed and the issues of diversity in the IT industry are explained in more detail. In addition, gender is defined as it is understood in this thesis, and turnover statistics of the IT industry are presented. The third chapter reviews the literature, focusing on the main research themes, including job satisfaction, job retention, and inclusive organizational practices.

The inclusive organizational practices used in this study are formulated in the third chapter based on previous studies. The fourth chapter focuses on research methodology and discusses data collection, questionnaire design, data analysis methods, as well as reliability and validity. Since the research focuses on the IT sector in Poland and Finland, the main features of both countries' IT industries and cultural differences related to gender equality are also presented. The fifth chapter, in turn, presents the key findings of the collected data, while the sixth chapter discusses the findings in accordance with the views of the theoretical framework. Finally, conclusions, research limitations, and suggestions for future research are discussed in chapter seven.

2 Diversity and IT industry

Robbins and Judge (2018) divide the definition of diversity into two levels, which are surface-level diversity and deep-level diversity. Surface-level diversity focuses mostly on demographic characteristics such as age, gender, and ethnicity, but does not reflect thoughts and feelings and can therefore make employees see each other through stereotypes and assumptions. Deep-level diversity, in turn, represents people who are less concerned about demographic differences because they see themselves sharing more important traits such as personality and values. Deep-level diversity gradually becomes more important in determining similarity as people get to know each other better. (Robbins & Judge, 2022, pp. 47-48.) Tan (2019), in turn, defines diversity as the occurrence of differences in a particular environment, including, for example, gender, race, ethnicity, and nationality. In addition, Tan (2019) states that organizational diversity requires a review of the structure of the group to ensure that multiple perspectives are represented. (Tan, 2019.)

In the IT sector, diversity issues are globally related to gender diversity, meaning the lack of women in the IT sector. According to Rushton et al. (2019), "the dominant gender discourse focuses on the binary division of woman/man or female/male [sic]" (Rushton et al., 2019, p.1). However, the term gender diversity more broadly recognizes gender identity and expression, gender defined in birth, and secondary sexual characteristics, but does not exclude binary experiences or genders, and therefore it creates an extensive reality of diversity in gender identity. Gender identity, in turn, can be defined as an inner perception of oneself as a man, a woman, a combination of both, or none of these (Zavaletta et al., 2022), and in this thesis, when discussing about women, the inner perception is taken into account.

Global data from 20 technology companies with over 100,000 employees shows that in 2020, the number of women in IT sector was 31.5 %, however, if only technology roles are considered, the percentage was only 23.1 %. (Bucaille et al., 2021). Furthermore, 23% of STEM jobs and 5% of technology leaders in the UK were held by women (Pwc,

2017) and in the USA, the share of women in software and hardware companies in 2017 was 36 % and in IT service companies 33 %. In more technical roles the number of women was significantly lower and only 17 % of leadership positions were held by women in the USA (Atal et al., 2019). Furthermore, according to Atomico's research (2021), the progress in diversity and inclusion is lacking in European technology industry as 38 % of women had experienced discrimination in the past 12 months (Atomico, 2021).

However, the studies show that equal gender distribution can increase employees well-being and engagement (Clerkin, 2017) and many IT companies has set goals to narrow down the gender gap. According to Hupfer et al. (2022), HP has set a goal of achieving 50 % gender equality in leadership positions, while Intel's goal is to equalize the gender distribution by doubling the proportion of women and minorities in leadership positions by 2030 (Hupfer et al., 2022). Correspondingly, the Finnish IT company TietoEvry has set a goal that 50 % of its employees will be women by 2030 (TietoEvry, 2021a), and the American software company Salesforce has set a goal that by the end of 2026 40 % of its employees will be women-identifying or non-binary (SalesForce, 2022).

In addition, the studies have been conducted how to attract more women to the IT field and according to Haroon et al. (2019), organizations should focus on recruiting women and minorities (Haroon et al., 2019). However, if the minority status of women in STEM is highlighted in recruitment, women may be less likely to identify with STEM and therefore be less likely to pursue a STEM career. Thus, if the current gender gap is represented in recruitment situations, a narrowing gender gap should also be explained in order to make women feel more desirable. (Cowgill et al., 2021.) Moreover, the use of non-gendered words in job advertisements can increase the number of female applicants and help to attract more women to the field, as happened in TietoEvry's recruitments. TietoEvry changed gendered words in their job advertisements and as a result, the number of women among the applicants increased by 32% (TietoEvry, 2021b).

Furthermore, Microsoft's research conducted in 2017 shows, that European young women are interested in STEM at the age of 11-12, but the interest drops significantly at the age of 15-16 (Microsoft, 2017) and during these crucial years, girls' passion for STEM subjects should be fostered in Europe. Haroon et al. (2019) supports this statement suggesting that organizations and educational institutions should encourage women to take technology courses in order to remove stereotypes and increase women's self confidence in working in STEM (Haroon et al., 2019). In addition, Haroon et al. (2019), emphasizes that technology companies should exceed the requirements of the law and strengthen an inclusive culture in the entire work environment. According to them, IT companies must commit to creating a cultural shift toward inclusion and diversity, including staff training and policy creation regarding the desired organizational culture. (Haroon et al., 2019.)

By utilizing research results and setting goals for an equal gender distribution, some progress has been made, and according to Bucaille et al. (2021), IT industry continues to narrow the gender gap. Deloitte Global predicts that large technology companies will reach approximately 33 % female representation in their overall workfoce during the year 2022 while in 2019 the corresponding number was 30,8 %. The number of women in technical positions is also expected to increase, as in 2019 the proportion of women was 22.4 %, but in 2022 it is predicted to rise to 25 %. (Bucaille et al., 2021.)

However, while the number of women working in tech is gradually increasing, many women working in IT companies are leaving and even switching industries globally. In Finland, for example, the number of women in the IT sector is increasing (Technology Finland, 2022), but the Finnish IT sector struggles with high turnover (Confederation of Finnish Industries, 2020). Correspondingly, in India, where the gender gap in the IT sector is narrowing rapidly (Verma, 2022), staff turnover is a challenge. Moreover, the high turnover seems to be a gendered issue as according to Harper (2021) the turnover rate of women is more than twice that of men in the technology sector (Harper, 2021).

This is supported by Gupta (2022), who states that although the Indian IT industry has succeeded in attracting more women, a large proportion of women leave the industry within the first five years of employment (Gupta, 2022).

For the above-mentioned reason, it can be assumed that the intended retention time differs between women who have worked in the IT sector for over five years and women who have worked in the IT sector for less than five years, and thus the first hypothesis is as follows:

Hypothesis 1 : “The intended retention time of female IT employees varies between those with less than five years of experience in IT field and those with more than five years of experience in IT field.”

Below, the turnover figures of the IT sector are presented and finally, the importance of retention is explained.

2.1 Turnover and retention of women in IT sector

According to Phillips and Connell (2011), retention is the percentage of employees that organization is able to keep, and a high level is generally desired. Turnover, on the other hand, means the opposite, referring to the percentage of employees who leave the organization for any reason, while turnover rate refers to the rate of individuals leaving. High turnover affects the organization by causing high financial costs, a large number of administrative tasks and productivity gaps, but it can also create a negatively viewed organizational image and reduce the job satisfaction of the remaining employees. (Phillips & Connell, 2011, pp.2-6.) Thus, employee retention benefits organizations in multiple ways. However, according to Phillips and Connell (2011), the turnover rate should not be too low either as it may stifle new thinking and ideas and increase salary costs as settled employees move up to higher wages (Phillips & Connell, 2011, p.40).

In IT sector, employee's turnover rate is relatively high, 13,2 %, and many of the tech companies tend to suffer due to high turnover rates. For example, the median tenure in Amazon is only one year whereas the median tenure of Google's employee's is 1,1 years. (Johnson, 2018.) Some of the countries face even bigger turnover rates in IT industry and for example in Finland the turnover rate of all employees of IT sector during the years 2018-2019 was 16,2 % (Confederation of Finnish Industries, 2020).

Even though the turnover rate of IT sector impinges on the whole industry, it also seems to be a gendered issue. According to McCain (2022), women leave tech roles 45 percent more than men (McCain, 2022) and according to Needle (2021), women in STEM careers are more likely to leave their jobs within the first few years than those in non-STEM jobs (Needle, 2021). Moreover, according to Funk and Parker (2018), among those who majored in computers or computers science during their studies, women are less likely to work in computer occupations. In addition, 48 % of women who work with mostly men in STEM felt that their gender had a negative impact on their success at work. (Funk & Parker, 2018.)

A few studies have been conducted on the female retention in the IT sector and for example Capital One studied the retention of 250 women. The women who participated in the study had worked in a technology career for eight years or longer and had reached senior positions. The main reasons for retention were that the respondents felt they were good at their job, enjoyed working with other technicians, liked the work itself, considered the compensation fair, and perceived the work arrangements as flexible. All the reasons mentioned above are related to the job satisfaction defined below. On the other hand, women who left their careers in technology cited "weak management support," "lack of opportunities," and "inadequate work-life balance" as the top reasons for leaving. (Capital One, 2019.)

In addition, Vassallo et al. (2015) conducted a study for women who had worked for 10 years or longer in technology in Silicon Valley, a region in Northern California, including

over 200 women in a wide age range and in different positions. According to the study, 88 % of the respondents have experienced unconscious biases, as the questions that should have been addressed to them were addressed to male peers. Moreover, 75 % of the respondents were asked about their family life, marital status, and children in job interviews and 60 % of respondents reported sexual harassment. (Vassallo et al., 2015.)

Furthermore, Annabi and Lebovitz (2017) conducted qualitative research of women's retention in the US IT industry, paying particular attention to gender diversity and organizational interventions that address the barriers women face in the IT workforce. The results show that the interviewees emphasize the benefits of culture and human capital, but in addition, changing organizational structures, policies, and culture requires organizational commitment and management support. Moreover, it is stated that retention of women is an organizational problem which should not be left to women to solve. (Annabi & Lebovitz, 2016.)

The two latter studies discussed above emphasize the structural inequality and biases that women working in male-dominated industries are facing. These gender-related problems are related to job satisfaction by reducing it and eventually causing women to change fields or companies. However, both studies focus on the US IT industry, and there is a lack of academic research on European IT field and female retention. The following chapter defines the concept of job satisfaction and explains the importance of it. In addition, gender-specific issues are examined.

3 Job satisfaction and inclusion

According to Aziri (2011), job satisfaction is widely used in scientific research, but despite that, there is no general agreement on what job satisfaction is (Aziri, 2011). Spector (1977) states, that “job satisfaction is simply how people feel about their jobs and different aspects of their jobs”. According to them, the concept of job satisfaction defines the extent of how employees like (satisfaction) or dislike (dissatisfaction) their jobs and therefore it is an attitudinal variable. (Spector, 1977, p.2.) Barden (2018) in turn, states that the better the work environment matches the employee's needs, values, or personal characteristics, the better the job satisfaction is (Barden, 2018, p. 21).

Moorman (1993) examines the concept of job satisfaction through affective satisfaction and cognitive satisfaction. Affective satisfaction is related to the general emotional evaluation of work, and it focuses on "whether the work evokes good mood and positive emotions" (Moorman, 1993, p.13). Furthermore, when measuring affective job satisfaction, questions related to the emotions experienced at work and the employee's mood while working should be asked. The positive feelings observed in the responses indicate high job satisfaction. Cognitive satisfaction, on the other hand, is measured by evaluating working conditions and does not reflect emotional evaluations. Therefore, when measuring cognitive satisfaction, one should ask about the nature of the work, the working conditions and the possibilities to satisfy important needs. (Moorman, 1993).

One of the most recognized theories about job satisfaction, is Herzberg's two-factor theory. The two-factor theory divides employee’s job satisfaction in two factors, which are motivational factors and hygiene factors. The satisfaction depends on motivatiors (intrinsic factors), such as challenging tasks, recognition, advancment opportunities, and personal growth, whereas dissatisfaction depends on hygiene factiors (extrinsic factors) such as monetary compensations, company policies, and interpersonal relations. In other words, the motivational factors increase an individual's job satisfaction while hygiene factors, when absent, decrease job satisfaction (Holmberg et

al., 2018). Further, Yusoff et al. (2013) state, that hygiene factors may prevent employees' dissatisfaction while the motivational factors may increase the job satisfaction (Yusoff et al., 2013). The two-factor theory has also been criticized. House and Wigdor (1967) claim that the two-factor theory does not take into account individuals and according to them, a certain factor can cause job satisfaction for one person but dissatisfaction for another. Further, they argue that motivational factors are more important for both job satisfaction and job dissatisfaction. (House & Wigdor, 1967.)

However, despite the criticism, Yusoff et al. (2013) state that the two-factor theory provides a comprehensive set of factors covering an individual's intrinsic and extrinsic needs. Furthermore, they argue that hygiene and motivational factors are interdependent because the presence of hygiene factors only removes dissatisfaction, while a satisfactory supply of motivational factors increases job satisfaction (Yusoff et al., 2013). Thus, it can be stated that by studying both, hygiene and motivational factors, a comprehensive understanding of the state of job satisfaction is obtained and therefore the factors defined in the two-factor theory are also utilized in this thesis when examining the current job satisfaction of female employees in the IT industry.

Examining job satisfaction in order to improve it is vital for organizations, as high job satisfaction benefits organizations in many ways. According to Fazriyah et al. (2018), "satisfied employees are more productive, wholehearted, willing to serve beyond their job description, positively express their organization, help colleagues and give their full contribution to companies" (Fazriyah et al., 2018, p. 201). This kind of highly positive behavior is defined as organizational citizenship behavior (OCB). According to Veličkovska (2017), the concept of organizational citizenship behavior is a combination of the Chester Bernand's concept of the "willingness to co-operate" and Daniel Katz`s distinction between "dependable role performance and innovative and spontaneous behaviors". OCB is defined as voluntary committed behavior by employees that contributes to organizational effectiveness but is not specifically rewarded by the

organization. Thus, employees engage in citizenship behavior voluntarily and it is not related to any formal remuneration. (Veličkovska, 2017, pp.40-41.)

Furthermore, there is a relationship between job satisfaction and an inclusive work environment, as according to Brimhall et al. (2018), an increased sense of inclusion is associated with increased job satisfaction for individual employees (Brimhall et al., 2018). In addition, the direct link between inclusive workplace and OCB exists as the results of the study by Panicker et al. (2018) highlight, that the organizations' favorable inclusive atmosphere, and well-formed inclusive practices lead to high levels of OCB. Additionally, a proposal was presented to management to promote diversity by investing in practices that promote employee inclusion, especially gender diversity. (Panicker et al., 2018.)

In conclusion it can be stated that high job satisfaction is vital for organizations, as satisfied employees are willing to help their colleagues and give their full contribution to the company. Further, highly satisfied employees are a valuable asset to organizations, as evidences suggests that employees with high job satisfaction have positive work attitudes and they may even exceed their job description (Whitman et al., 2010). Moreover, high job satisfaction is cruicial for employee retention, presented below. Further sections elaborate on these relationships and their potential impact, suggesting testable hypothesis.

3.1 Job satisfaction and job retention

Retention is the percentage of employees that an organization is able to retain, while turnover is the opposite, meaning the percentage of employees who leave the organization. A high retention is generally desirable, but managing retention is a constant challenge for organizations. Therefore, retention has become a central topic in business literature, and workshops and seminars on retention and turnover are constantly organized. (Phillips & Connell, 2011, pp.2-6). According to Howe et al. (2012), the retention

can be predicted by measuring individual characteristics such as benefits, education, and organizational culture, however, the importance of each characteristic varies between employees. Thus, in some occupations, intention is a good predictor for actual staying (Howe et al., 2012).

According to George (2015), in order to retain employees, it may be more important to recognize the organizational factors that make employees stay rather than identify the factors that make them leave the organization. According to their study, the factors to predict employee's intention to remain in an organization can be divided in organizational factors and job factors. The organizational factors group includes "appropriate style of leadership, support from top and other levels of management, pleasant place to work, adequance resources, flexibility, feeling part of the team, friendly and caring colleagues, colleagues that are available for consultation, potential to develop new competencies and promotion, and career prospects". The job factors, in turn, includes the following factors : "possibility of choosing how to do one's work, having influence over one's work, flexibility in workload decisions, a fair salary based on performance and effort, having a workload that is adapted to the resources/abilities of the individual, full skill utilisation, being creative, and being able to find sufficient time for activities other than work". The organizational factors were found to be more important in terms of retention. (George, 2015, pp. 108-114)

In addition, Karthikeyani (2020) has examined job satisfaction in order to retain employees and according to them, job satisfaction and job retention are the most important factors for the success of any company. Karthikeyani (2020) argues that retention can be difficult to achieve, but when company recognizes what employees value, they are going in the right direction. Further, according to them, the employee's reasons for quitting their job are related to workplace problems, and thus by increasing the employees' job satisfaction, retention at work can also be improved. (Karthikeyani, 2020.) However, the research only highlights factors that can improve employees' job

satisfaction, but does not examine the direct relationship between job satisfaction and job retention.

Yousaf et al. (2014) in turn, have examined the retention in female perspective, and according to them, the specific issues in female retention are family friendliness and social issues. The results of the survey show that women's efforts are still not appreciated and encouraged at the organizational level, while men who make the same contribution are recognized and acknowledged. In addition, women expect equal opportunities to participate in decision-making, advancement and career development. Thus, in order to retain women, organizations must pay attention to gender discrimination and encourage women's by supporting them. (Yousaf et al., 2014.) Consequently, the second hypothesis of the study is as follow:

Hypothesis 2: "High level of job satisfaction has a positive effect on women retention in the global IT industry."

However, the studies of retention and especially of retention and job satisfaction are limited, which is supported by Loan-Clarke et al. (2010) stating, that the retention and the reasons for staying in an organization is "almost untouched research topic" (Loan-Clarke et al., 2010, p. 393). However, as the retention is the result of organizational commitment (Zangaro, 2001) the studies regarding job satisfaction and organizational commitment are presented below.

3.2 Job satisfaction and organizational commitment

Organizational commitment is an attitude that can be referred as an individual's attachment to an organization. Furthermore, such an attitude can be seen as an internal state that precedes and guides a person's actions, including feelings, beliefs, and behavioral tendencies. (Solinger et al., 2008, p.72) According to Liou et al. (2008), "as employees become more committed to their organization, the employee retention rate

improves" (Liou et al., 2008, p. 116) and thus examining job satisfaction and organizational commitment is appropriate for this study.

Several authors have studied the relationship between the job satisfaction and organizational commitment and there is considerable evidence that high job satisfaction and organizational commitment reduces employee turnover. According to Lee et al. (2017), job satisfaction is the main antecedent to employee turnover. Lee states that many companies regularly survey their employees to track predictors such as job satisfaction and organizational commitment in order to prevent turnover. (Lee et al., 2017.) In addition, the study of Saridakis et al. (2020) suggest that job satisfaction significantly affects on organizational commitment (Saridakis et al., 2020), which is supported by the previous studies showing that the higher job satisfaction increases the level of organizational commitment (Kang et al., 2021). Valaei et al., (2016) in turn, has examined employee's satisfaction and organizational commitment among ICT industry. The results show that pay and benefits, promotion, operating procedures, and nature of work had a positive relationship with commitment. (Valaei et al., 2016.)

Barden (2018), on the other hand, have revealed some critical factors to engage employees. According to Barden (2018), Buckingham and Coffman (1999) have found in their research that employee empowerment, equal opportunities and fair treatment, family friendliness, clarity of company values and respectful treatment of employees should be considered in employee engagement (Barden, 2018). The empowerment of women is also supported by Agrawal and Srivastava (2018). They have studied the job satisfaction and commitment of female employees, and the results show a positive effect of employee empowerment on job satisfaction and organizational commitment. In addition, the results suggest that empowerment may play a more important role for women, because women generally have a greater need to reconcile work and family life. In addition, women's empowerment and participation in decision-making leads to better job satisfaction. (Agrawal & Srivastava, 2018, pp.140-142.)

The above-mentioned studies on job satisfaction and organizational commitment from a women's point of view highlight practices for making the work environment equal for all genders and thus also refers to an inclusive work environment. Similarly, George's (2015) organizational factors, such as feeling part of a team, friendly and caring colleagues, and a pleasant workplace to predict retention also point to an inclusive work environment. Therefore, inclusion is important in the study of gender diversity in organizations. According to Nishii (2013), in inclusive organizations, gender diversity is associated with lower levels of conflict, and the negative effects of these conflicts on unit-level satisfaction evaporates. Further, as unit-level satisfaction increases, staff turnover decreases. (Nishii, 2013.) This statement is supported by Nishii and Mayer (2009), as according to them, inclusivity may reduce turnover in diverse groups (Nishii & Mayer, 2009).

Based on the above, it can be stated that inclusion is essential when examining the retention of women through job satisfaction in male-dominated industries, and thus the third hypothesis is formed as follows:

Hypothesis 3: “Implemented highly inclusive organizational practices have a positive effect on women retention in the global IT industry."

Next, inclusion is defined in more detail and inclusive organizational practices are presented.

3.3 Inclusion, inclusive organizational practices, and job satisfaction

According to Tan (2019), inclusion means a conscious and continuous effort, the goal of which is to ensure that individuals with different identities can participate in all areas of the organization (Tan, 2019). In addition, Martin et al. (2011) suggest, that “an individual’s experience of social inclusion can be explained by the complex interactions between personal and environmental factors, including social and cultural factors”.

Furthermore, discrimination, exclusion, and a sense of belonging to the community are aspects that need to be taken into account when defining inclusion. (Martin & Cobigo, 2011, p.277.)

The gender infrastructure approach and the organizational change approach, in turn, help to understand how to make the culture of a gender-biased organizations more inclusive for all genders (Rao & Kelleher, 2003) and thus fit the needs of the male-dominated IT industry. Gender infrastructure approach involves the placement of a basic infrastructure which can include, for example, the organization's equality policy, family-friendly policies such as flexible working hours and childcare in the workplace, and increasing the number of female staff and managers. The approach seeks to leverage external pressures, such as pressure from women's movements, and management support in order to achieve the change. (Rao & Kelleher, 2003, p.5.) On the other hand, organizational approach, seeks to change deep structures such as power relations and work-family life balance. According to Rao and Kelleher (2003), changing deep structures requires organizational development, management support and equality training. (Rao & Kelleher, 2003, pp. 5-6.)

Roberson (2006), in turn, has defined inclusion from the perspective of the organization by defining it as organizational goals that aim to increase the participation of each employee and utilize the impact of diversity on the organization. Furthermore, Roberson (2006) argues that an inclusive environment makes employees feel included and that in an inclusive organization differences are recognized, valued and respected and these differences are used to exploit competitive advantages. In addition, Roberson (2006) has defined 27 characteristics of an inclusive organization, including, for example, attributes related to employee involvement, collaborative work environment, leadership commitment, alignment of organizational values and goals, representation of different groups, fair treatment and equal opportunities. (Roberson, 2006, p. 223.)

Accenture (2018), on the other hand, has identified 40 factors for creating an inclusive organizational culture by interviewing over 18,200 professionals internationally. According to their study, the similar characteristics were found as in Roberson's (2006) study, but the attributes are more precisely defined. For example, while Roberson (2006) has set the attribute "leadership commitment to diversity", Accenture (2018) states that “gender diversity is a priority for management”, “leaders are held accountable for improving gender diversity” and that “the leadership team is diverse”. As another example, Roberson's (2006) attribute "diversity mission, goals, and strategies" is divided by Accenture (2018) as follows: “a diversity target or goal is shared outside the organization”, “a diversity target or goal is shared inside the organization” and “the organization clearly states gender pay gap goals and ambitions”. (Accenture,2018 ; Roberson, 2006, p. 223.)

By examining the approaches by Rao and Kelleher (2003), and by combining the attributes of Accenture's (2018) and Roberson's (2006) researches, the inclusive organizational practices are divided in this thesis into five different categories, which are leadership and the use of power, communication, empowering environment, family friendly policies and work-life balance, and trainings and development opportunities. In the first category, leadership and the use of power, the practices emphasize leaders' commitment to diversity and gender diversity and their responsibility to ensure representation of different populations and genders at all levels of the organization. Inclusive organizational practices related to communication emphasize that diversity goals should be clearly stated, progress on gender diversity should be measured and communicated, and employees should feel comfortable reporting even difficult issues such as discrimination or harassment. The practices related to the third category, the empowering environment, emphasize equal opportunities and the ability of employees to be truly themselves at work, while family-friendly policies and work-life balance practices emphasize flexible working hours and work arrangements, and equal parenting by encouraging all genders to take parental leave. Finally, inclusive organizational practices related to the fifth category, training and development

opportunities, focus on the organization's commitment to continuous learning by providing employees with development opportunities and training on diversity issues.

Few studies have been conducted to understand the impact of inclusive workplace culture on women's success at work. Kuulas Helsinki (Women in Tech, 2021) has used the 40 factors that Accenture has identified for creating inclusive organizational culture in order understand the inclusivity of workplace cultures in Finland and its effect on women's success at work. The target group of the study was women currently or previously working in technology positions, and the total number of respondents was 770. The inclusivity of organizations was measured based on women's perceptions and according to their study, the level of inclusivity in organizations directly affects how women experience their work and how long they want to stay at their job. (Women in Tech, 2021.) However, the study was concentrating only to Finnish companies, and the international perspective was not taken into account. In addition, the effect of inclusive organizational practices on women's experiences of their work was only partially examined, as the study focused on how inclusiveness affects women's success in technical roles. Furthermore, the study investigated how inclusive the respondents perceive their workplace culture in general, but the importance of individual inclusive organizational practices and their implementation in organizations was not compared. To fill this gap, this study compares perceptions and implementation of the inclusive practices. This study tests which inclusive organizational practices women consider most important and how well they think each inclusive organizational practice is implemented in their organization, revealing whether the most important practices could be implemented better.

The final hypothesis of the study is formed as follows:

Hypothesis 4 : "Regardless of the cultural environment, women who perceive highly inclusive organizational practices to be well implemented in the organization have

higher job satisfaction than women who perceive highly inclusive organizational practices to be poorly implemented in the organization."

The following chapter presents the methodology of the research.

4 Research methodology

This chapter introduces the research method as well as data collection and data analysis methods. Finally, the limitations, validity and reliability of the study are discussed.

4.1 Research method

Considering the nature of the research question ("Does higher job satisfaction improve the retention of women in the global IT industry?") and the goal of the study, which is to find out whether managing job satisfaction could help retain female employees in the IT industry, the research method aims to provide a general understanding of the relationship between job satisfaction and job retention in the IT industry among female employees. Therefore, the research is a quantitative, explanatory research.

In quantitative research, data must be collected in numerical form, however, the information that is not inherently quantitative can also be collected in quantitative form. For example attitudes and beliefs can be collected by developing a questionnaire that asks respondents to select a number which best describes their attitude towards the statements (e.g. 1 strongly disagree and 4 strongly agree). In addition, quantitative research method is particularly suitable for testing a hypothesis developed based on theory (Mujis, 2004, pp. 2-8) and in this study, hypotheses are formed based on theory and tested in the data analysis section.

In addition, this quantitative research is explanatory. An explanatory research allows researcher to examine relationships between variables (Saunders et al., 2007, p.356) and by conducting explanatory research using quantitative data and statistical tests, the clearer view of the relationship is obtained (Saunders et al., 2007, p. 134). This study examines the retention of women in the IT industry by examining the relationship between retention and job satisfaction, and by examining the relationship between women's job satisfaction and inclusive organizational practices and therefore,

the explanatory research method suits the needs of this study. Furthermore, the survey method has been used in this study, which allows the researcher to collect information from a large population using a standardized questionnaire and facilitates the comparison of answers between respondents (Saunders et al., 2007, p.138). Thus, by using the survey strategy it is possible to compare the answers between the selected respondent groups within different contexts.

4.2 Data collection

The used data collection method is self-administrative, web-based questionnaire. According to Saunders et al. (2007), the self-administrated questionnaires are usually administrated electronically by using internet and completed by the respondents (Saunders et al., 2007, p.357), as has also been done in this study. The use of a web-based questionnaires is supported by the fact that sensitive questions, such as intended retention time, have been found to be reliable in online surveys (Heikkilä, 2014, p.18) and thus, by using web-based questionnaire, the research results are likely to be more reliable.

Further, questionnaires can be used to collect assessments of people's opinions and preferences. Banducci and Franklin (2012) state that, for example, statements about the level of job satisfaction can be collected by using a rating scale (Banducci & Franklin, 2012, pp.170-173), and thus the use of questionnaire suits to the needs of the study. In addition, Saunders et al. (2007) argues, that questionnaires are suitable data collection methods if the research is explanatory, as the use of questionnaires enables researcher to explain relationships between the variables. (Saunders et al., 2007, p.256). Since this study is explanatory in nature and the aim is to explain the relationships between variables, the use of standardized questionnaires is suitable data collection method for this study. Furthermore, the use of questionnaires allows data to be collected from large number of respondents, which is crucial, as in order to provide a generalized understanding about the relationship between job satisfaction and women’s retention as

well as the relationship between inclusive organizational practices and job satisfaction of women in the IT sector, the large number of respondents is needed. Further, in order to test whether women who perceive highly inclusive organizational practices as well implemented have higher job satisfaction regardless of their cultural environment, women from different cultures must be surveyed, which can be done using a questionnaire.

Banducci and Franklin (2012) state that the population of the research must be clearly defined, and the sample must be considered before conducting the research. According to Banducci and Franklin (2012), the researcher must define the target population of the research and ascertain the characteristics of them. After that, the researcher must consider how many individuals in the target population is needed to survey and how the selection is made. (Banducci & Franklin, 2012, p. 173-175.) In this study, the target population is women working in IT field and the sample is Polish and Finnish women working in the IT MNC company. Therefore, the questionnaire is sent to each female employees working in Poland or Finland. The industry and country context as well as the reasons for forming this sample are explained in depth in the following subsection.

4.2.1 IT Industry in Finland and Poland

In Finland, IT industry is growing rapidly. According to Kolehmainen (2021), at the end of March 2021 Finnish IT companies employed over 72 000 employees and despite the covid-19 pandemic, in 2020 the sector's turnover grew by 4 percent compared to the previous year and was 15 billion euros. Furthermore, the companies are expecting the growth to continue as in 2021, the industry expected the turnover for the first half of the year to be on average better than the corresponding period of the previous year. (Kolehmainen, 2021.)

If the entire information and communication technology industry in Finland is taken into account, the numbers are even bigger. According to Finnish Federation for Communications and Teleinformatics FiCom ry (2021), in 2021 the ICT industry employed over 121 000 employees in Finland and the total number of employees in the sector increased by 3 percentage compared to the previous year. In addition, the share of ICT workers in Finland is the largest in the EU region, 7.6 % of all employed people. (Finnish Federation for Communications and Teleinformatics FiCom ry, 2021.) Similarly, the IT field in Poland is constantly growing. The number of employees has increased every year since 2010, and in 2019 ICT sector employed over 280 000 employees in Poland. (Statista, 2022.)

However, both countries struggle with uneven gender distribution and retention of IT workers. According to European Commission, women in Poland represented only 17,4 % self-employed professionals in Science and Engineering and Communication Technologies in 2018. Compared to European average, 24,9 %, the number was significantly lower, and Poland was ranked third lowest across 24 EU Member States and Associated countries. (European Commission, 2021.) Moreover, 62 % of Polish companies operating in IT industry are expecting high staff turnover in the near future. (PMR ICT Market Experts, 2021.) Correspondingly in Finland the turnover rate of all employees of IT sector during the years 2018-2019 was relatively high, 16,2 % (Confederation of Finnish Industries, 2020) and the number of women in the whole field was less than 28 % (Technology Finland, 2021).

Although turnover is high, there is a gap in academic research on the retention of IT employees from the countries. In addition, since both countries are struggling with uneven gender distribution in the industry and the IT industry is rapidly growing, it is important to examine particularly the female retention. Therefore, this research can be considered unique and timely.

The company used as a context in this thesis is a Finnish multinational company operating in the IT sector. The company employs globally approximately 1000 employees and is operating in seven countries. Majority of the employees work either in Finland or Poland, and therefore in this study Finnish and Polish employees are surveyed. Since the anonymity of the company has been agreed, no further information about the company will be given.

Next, the cultural differences between Finland and Poland are briefly described in order to understand the current state of gender equality in both cultures. In addition, the selection of these countries for this study is demonstrated.

4.2.2 The culture of gender equality between Finland and Poland

According to Ministry of Social Affairs and Health (2022), Finland is a pioneer in promoting gender equality. In Finland, women were the first in the world to receive full political rights, and recently gender equality in Finland has continued to diversify in order to dismantle gender stereotypes and recognize gender diversity. However, there is still work to do to achieve the full potential of gender equality. For example, caregiving responsibility has not been sufficiently shared between men and women and pay equality has not yet been achieved either. (Ministry of Social Affairs and Health, 2022.) Further, according to Mesiäislehto et al. (2022), during the Covid-19 pandemic the unequal and gendered structures of society came to the fore: the decline in the female employment rate was faster and more drastic, the negative well-being effects were particularly strong for girls and young women, and women found the combination of remote work and childcare particularly difficult during the pandemic (Mesiäislehto et al., 2020, pp. 170-173). However, Finland aims to improve gender equality. In August 2022, the family leave reform entered into force, which aims to increase equality for parents in working life, and to distribute caregiving responsibilities more evenly between parents (Finnish Government, 2022). In addition, Finland has established the first international equality award, which emphasizes that the entire international

community must work for equality more persistently (Ministry of Social Affairs and Health, 2022).

In Poland, progress towards equality is slower. 3.1% of Polish women aged 15-49 reported in 2018 that they had experienced either physical or sexual violence from a current or former partner during the previous year. In addition, girls and women over the age of 10 reported spending 17,6% of their time on unpaid care and housework. The corresponding number for men was 9,6%, which is significantly lower than the corresponding number for women. (UN Women, 2022.) In addition, Poland's abortion law is one of the strictest in the EU, and abortion is only allowed if the mother's health is at risk, the fetus has an abnormality, or the pregnancy is the result of rape or incest. (Sifferlin, 2022). Furthermore, the Polish parliament is currently considering the possibility of withdrawing from the Istanbul agreement (European Institute for Gender Equality, 2021a). According to European Parliament (2021), the Istanbul Convention is “a tool for combating violence against women and girls, and it is the first instrument in Europe to set legally binding standards specifically to prevent gender-based violence, protect victims of violence and punish perpetrators“ (European Parliament, 2021).

The state of gender equality in different countries can also be measured with the Gender Equality Index, which is recognized as a reliable measurement tool in the European Union. The Gender Equality Index reveals progress and setbacks of different countries and allows the comparison between countries. The country's maximum score is 100, and including the 27 EU countries, the average is 68 points. However, Poland's score was significantly lower, 56.6 out of 100, while Finland exceeded the average, reaching a total of 75.3 points. (European Institute for Gender Equality, 2021b). Thus, it can be reasonably stated that the culture of gender equality differs between Poland and Finland.

This study examines the inclusive organizational practices of the Finnish and Polish IT industries and their impact on women's job satisfaction. The final hypothesis suggests

that regardless of their cultural environment, women who perceive highly inclusive organizational practices to be well implemented in the organization have higher job satisfaction than women who perceive highly inclusive organizational practices to be poorly implemented in the organization, and the final hypothesis can be tested by comparing the respondents between Finnish and Polish employees.

4.3 Questionnaire design

According to Saunders et al. (2007), most self-administered questionnaires have a cover letter explaining the purpose of the survey. In addition, to ensure a high response rate, the first page should have a concise summary in which the researcher explains why they want the respondents to complete the survey. The summary should have a clear title and logo that add interest. (Saunders et al., 2007, pp. 382-384.) For this reason, the questionnaire used in this study begins with a cover letter and a brief summary. The actual questionnaire is divided in four categories, background questions, job satisfaction, inclusive organizational practices, and retention, described below in more detail.

4.3.1 Background questions

In this category, the working location, duration of working in the IT sector, type of employment contract, gender identity and work position are asked. The working location enables the comparison of answers between Finnish and Polish employees and allows testing of the fourth hypothesis (“Regardless of the cultural environment, women who perceive highly inclusive organizational practices to be well implemented in the organization have higher job satisfaction than women who perceive highly inclusive organizational practices to be poorly implemented in the organization.”) The duration of the working in the IT field, in turn, is asked as it enables the first hypothesis to be tested (“The intended retention time of female IT employees varies between those with less

than five years of experience in IT field and those with more than five years of experience in IT field”). In addition, the type of employment contract is asked, as it can affect the planned retention time as temporary employees may not see themselves as employees in the future if their employment is coming to an end. This study adopts Zavaletta's (2022) definition of gender identity, that is why the respondents are asked about their gender identity in order to focus on those who identify as women rather than women according to their sex. Finally, the work position is asked to create a descriptive statistics about the respondents.

4.3.2 Job satisfaction

The second category of the questionnaire is job satisfaction, where respondents are asked to evaluate statements related to job satisfaction. The statements are based on Herzberg's two-factor theory and the questionnaire contains statements about both, hygiene factors and motivational factors. Yussof et al. (2013) state that the two-factor theory offers a comprehensive set of factors that cover an individual's intrinsic and extrinsic needs (Yousef et al., 2013) and thus, the factors defined in the two-factor theory are also used in this thesis in order to obtain a comprehensive understanding of the respondents' current state of job satisfaction.

The statements are evaluated on a four-point Likert scale, which means that the answer options are marked on a scale of 1-4, where 1 is strongly disagree, 2 is disagree, 3 is agree and 4 is strongly agree. A four-point Likert scale has been chosen for this study because, according to Garland (1991), respondents may want to please the researcher and therefore may not give a socially unacceptable answer, but this error can be minimized by eliminating the midpoint of the answer options (Garland, 1991). Further, the four-point Likert scale enables the processing of the answers as numerical responses (Wu & Leung, 2017).

4.3.3 Inclusive organizational practices

The third category of the questionnaire contains 16 inclusive organizational practices. First, respondents are asked to rate each practice how well they think those are implemented in the company they work for, and then the same practices are asked to rate how important the respondents find them in general. The four-point Likert scale is utilized in these questions as well, and thus the implementation and importance of each practice is evaluated on a scale of 1-4.

The inclusive organizational practices used in the questionnaire are formed by combining the practices of Accenture's (2018) and Roberson's (2006) studies and examining the gender infrastructure approach and the organizational change approach by Rao and Kelleher (2003). First, Roberson's (2006) 27 practices and Accenture's (2018) 40 practices were listed and divided into categories. The categories were formed based on the gender infrastructure approach and the organizational change approach, which help to understand how to make the culture of a gender-biased organizations more inclusive for all genders (Rao & Kelleher, 2003). Finally, the corresponding practices were combined. A total of 16 inclusive organizational practices are used in the survey, which are divided into five different categories, which are leadership and the use of power, communication, empowering environment, family friendly policies and work-life balance, and trainings and development opportunities.

4.3.4 Retention

The final category of the questionnaire is retention, which contains four questions. The first two questions evaluate respondents' willingness to stay in the company after a certain period of time. The third question is an optional open-ended question in which the respondents are asked to reveal the reasons why they think they will either stay with the company or leave the company after a certain period of time. The last ques-

tion is similarly an open-ended question where respondents are asked to answer in years how long they estimate they will stay in the company.

According to Howe et al. (2012), intention is a good predictor for retention (Howe et al., 2012) and therefore, the questions are formulated to indicate the employee's willingness to stay with the company. Furthermore, according to Saunders et al. (2007), the most sensitive questions should be at the end of the questionnaire (Saunders et al., 2007. p.381) and these questions can be considered sensitive, because even though anonymity is guaranteed, revealing the intention to leave the company could affect the relationship with the supervisor and colleagues. Thus, the questions regarding intended retention time are at the end of the questionnaire.

4.4 Data description and analysis

The questionnaire was sent to all female employees working in company X either in Finland or Poland, a total of 156. However, 11 of the target group were on leave, so there was a total of 145 potential respondents, of which 79 responded, and thus the response rate was 54,5%. Of the respondents, 67 (85%) were Finnish and 12 (15%) Polish. 35 (44%) of the respondents had worked in the IT sector for 0-5 years and 44 (56%) of the respondents had worked in the IT sector for more than 5 years. Only one (1%) respondent had a temporary employment contract and 78 (99%) had a permanent employment contract. 26 (33%) of the respondents work in group support roles, including HR, sales and marketing, 46 (58%) are consultants and 7 (9%) work in management positions.

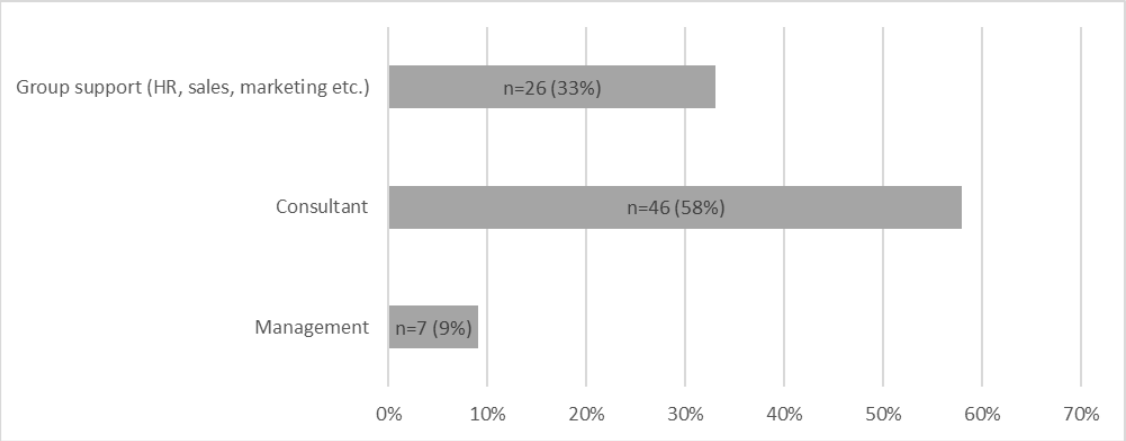

Figure 1. Organizational level of respondents.

76 (96%) of respondents identified as female and 3 (4%) as non-binary. Although the thesis focuses on the retention of women, employees who identify as non-binary have been included in the data analysis. All respondents who identified as non-binary are Polish, and since there are few Polish respondents, the inclusion of non-binary employees in the study increases the reliability of the results, especially when testing hypothesis 4. Additionally, as this thesis focuses on gender diversity and gender distribution, non-binary employees can also be included as they belong to a gender minority group in the company. Furthermore, it is stated in the thesis that organizations should focus on recruiting women and minorities (Haroon et al., 2019) and that many IT companies seeking to narrow down the gender gap aims to increase the number of women and underrepresented minorities or employees who identify as non-binary (Hupfer et al., 2022; SalesForce, 2022), and therefore, by including non-binary employees in the data analysis, the aim of the thesis can still be achieved.

The questions related to intended retention time were asked at the end of the questionnaire. The respondents were asked if they see themselves as employees of the company after a certain time and the reasons for the answers were asked in an open and optional question. 54 (68%) respondents answered the open question, and the word clouds were formed based on the findings. At first, the answers were divided into two groups. The first group included respondents who revealed reasons for staying in

the company, and the second group included respondents who revealed reasons for leaving. After that, all answers were transcribed and answers containing the same reasons were combined. In addition, the number of responses was recorded in combined answers in order to identify the main reasons for staying or leaving the company. Word clouds are presented in chapter 5.1.

4.4.1 Variables and methods of data analysis

The data is analyzed using means to understand the average state of job satisfaction. The questions about job satisfaction are based on a numerical scale, so the average can be calculated. In addition, the collected data reveals the inclusive organizational practices that women consider as most important ones and how well they think each inclusive organizational practice has been implemented in their organization, and thus it can be revealed whether the most important practices could be implemented better. This is done by comparing the means.

The concepts job satisfaction, implementation of inclusive practices and importance of inclusive organizational practices were measured with several variable. Job satisfaction consist of 12 variables and implementation of inclusive practices as well as importance of inclusive organizational practices consist of 16 variables. In order to analyse the results, the composite variables were created by calculating a mean for each concept and the reliability of these new concepts was assessed by calculating Cronbach's alpha. Cronbach's alpha for job satisfaction was 0.87, for implementation of inclusive organizational practices 0.89 and for importance of inclusive organizational practices 0.77. Therefore, it can be stated that the values are credible and measurement instruments are reliable.

Hypotheses were tested by using independent samples t-test, linear regression analysis, and two-way ANOVA. The initial plan was to test the hypotheses 2 and 3 with multiple regression analysis, but as there were issues with multicollinearity, the hypotheses

were tested independently. The same dependent variable (intended retention time) was used in both analysis, but as the intended retention time includes one outlier, the outlier value was modified to the same value as the closest non outlier value in order to analyse the data. Therefore, the predicted retention time of one respondent was changed from 25 to 12 years.

4.5 Validity and reliability

The success of a research can be measured by reliability and validity. Validity refers to the ability to measure what is intended to measure, and reliability refers to the consistency. For the results to be reliable and valid it must be ensured that the questions are understood by the respondent in the way intended by the researcher. In addition, the wording in a questionnaire should be considered carefully to ensure that the responses are valid. (Saunders et al., 2007, pp. 150-153.) To ensure the validity of the questions in the questionnaire used in this study, the questionnaire was reviewed by two independent researchers. The questionnaire was then modified according to their suggestions and tested with five people to ensure the comprehensibility of the questions before conducting the study.

In addition, the reliability of the results was taken into account in this study. When analyzing the data, composite variables were formed from the concepts of job satisfaction, the implementation of inclusive practices, and the importance of inclusive organizational practices. The reliability of these new concepts was assessed by calculating Cronbach's alpha and every concept reached a sufficient level. Moreover, when testing hypotheses 2 and 3, the outlier value was removed by changing the outlier value to the nearest non-outlier value and the independence of the errors was checked by Durbin-Watson. Based on Durbin-Watson, the independence of observations was met.

Also, the external validity must be taken into account when conducting research. According to Saunders et al. (2007) external validity refers to generalizability, more specif-

ically the extent to which the results are generalizable. Further, Saunders et al. (2007) state that external validity means that "the findings are equally applicable to other research settings" (Saunders et al., 2007, p.151). In this study, the sample was limited to the employees of one company, and therefore the results cannot be applied to the entire global IT industry in general but can be utilized in other Finnish and Polish companies operating in the IT sector that strive to retain women as employees. Furthermore, the aim of this study was to investigate the retention of women in IT industry in the particular research setting, which in this case was Finnish and Polish female employees working in Company X, and thus it can be stated that the external validity was considered. According to Saunders et al. (2007), external validity does not suffer even if the study covers only one organization as long as the researcher does not claim that the results are generalizable (Saunders et al., 2007, p.151).

5 Results

As presumed based on previous research, the data show that high job satisfaction has a positive effect on the retention of women in the IT industry. In addition, regardless of the culture, job satisfaction is higher when highly inclusive organizational practices are perceived as well implemeted in the organization. However, based on the analyzed data, there are no differences between the intended retention time of female IT employees with less than five years of experience in IT field and those with more than five years of experience in IT field. Further, the data shows that there is no significant relationship between implementation of highly inclusive organizational practices and intended retention time. The results are presented in more detail below.

5.1 Descriptive results and preliminary analyses

The means and standard deviations of predicted retention time, level of job satisfaction, level of implementation of inclusive organizational practices and level of importance of inclusive organizational practices can be seen in Table 1. The predicted retention time was asked in years and the mean of the responses was 4,25 years (Std. Deviation 3,51). Level of job satisfaction, level of implementation of inclusive organizational practices and level of importance of inclusive organizational practices were all answered in the scale 1 to 4 and the means were as follow: job satisfaction was 3,14 (Std. Deviation 0,47), implementation of inclusive organizational practices was 2,97 (Std. Deviation 0,47) and importance of inclusive organizational practices was 3,52 (Std. Deviation 0,28). As all questions were mandatory, the N was 79 in each section.

Table 1. Means and standard deviations of variables.

Descriptive Statistics

	N	Mean	Std. Deviation
Predicted_retention	79	4,253	3,5099
Job_satisfaction	79	3,1350	,46653
Implementation of inclusive org. practices	79	2,9668	,44158
Importance of inclusive org. practices	79	3,5127	,28331
Valid N (listwise)	79		

The predicted retention time was also asked in questions 9 and 10, where it was asked whether the respondents see themselves as an employee of the company in one year and whether the respondents see themselves as an employee of the company in five years. 71 (89,9%) of the respondents answered that they see themselves as an employee of the company in a year and 39 (49,4%) answered that they see themselves as an employee of the company in five years. Reasons for the answers were asked in open and optional question and 54 (68%) of the total responded answered.

The main reasons to stay in the company included colleagues and team members, possibility to develop own skills, interesting projects, and overall good place to work. In addition, future family plans, salary and benefits, atmosphere, and value alignment were mentioned. Some of the respondents also mentioned the uncertainty in Europe to affect their desire to stay in the company.

The main reasons to leave the company, in turn, included unsure career plans and desire to have experiences with other employers, dissatisfaction with salary and benefits, dissatisfaction to organizational support and projects, and the feeling that the career development and goals cannot be achieved in the company. In addition, it was mentioned that the management style is not people oriented, project values do not align with personal values, and DEI and sustainability are not priority to the company.

Figure 2. Reasons to stay with the company.

Figure 3. Reasons to leave the company.

Respondents were asked to rate the implementation of inclusive organizational practices in their organization on a scale 1-4, and the practices that the respondents felt were the most inclusive in their organization according to the means were "virtual/remote working is widely available and is commonly practiced" (3,85), "employees have the freedom to be themselves at work" (3,53) and "sexual discrimination/harrasnment is not tolerated" (3,44). The lowest scores included

"progress on gender diversity is measured and shared with employees" (2,13) and "diversity education and training is provided to employees" (2,39). Similarly, the respondents were asked to rate the importance of inclusive organizational practices on a scale of 1-4, and the most important inclusive organizational practices according to the means of the responses were "not tolerating sexual descrimination/harrasment" (3,96), "respecting work-life balance" (3,90) and "employees having a freedom to be themselves at work" (3,89). The lowest scores included "setting gender diversity as a priority" (2,92) and "measuring and sharing progress on gender diversity" (3,01). According to the results, the only inclusive organizational practice that respondents considered most important but did not reach the top three implemented practices was "respecting work-life balance" and therefore could be better implemented. However, the mean for implementation of this practice was 3,34, which is still relatively high.

Table 2. Means and standard deviations of implementation of inclusive organizational practices.

Descriptive Statistics

	N	Mean	Std. Deviation
Gender diversity is a priority for management and leaders are committed to diversity.	79	2,5316	,79800
The organization is fully committed to hiring, promoting and retaining employees in minority groups.	79	2,4810	,87502
Oganizational structure is flat.	79	2,8608	,78011
Diversity education and training is provided to employees.	79	2,3924	,88314
Organization is committed to continuous learning by providing possibilities to employees to develop their skills and competencies.	79	3,1139	,69775
Employees have the freedom to be themselves at work.	79	3,5316	,55088
Respect for differences of individuals (including gender identity, ethnicity, age, educational background, etc.)	79	3,3165	,68956
Sexual discrimination/harassment is not tolerated.	79	3,4430	,63543
The organization respect employees' needs to balance work with other commitments.	79	3,3418	,57481
Virtual/remote working is widely available and is commonly practiced.	79	3,8481	,36122
The organization pays equally for the same work, regardless of the employees' gender or gender identity.	79	2,7215	,76689
Employees can decline a request to work early morning/late evening meetings without negative consequences.	79	3,2785	,74999
Progress on gender diversity is measured and shared with employees.	79	2,1266	,86776
There is alignment between the organization values and organizational goals.	79	2,7595	,73755
Employees feel trusted and are given responsibility.	79	3,1013	,56828
The company pays attention reducing gender-biased language.	79	2,6203	,77300
Valid N (listwise)	79		

Table 3. Means and standard deviations of importance of inclusive organizational practices.

Descriptive Statistics

	N	Mean	Std. Deviation
Setting gender diversity as a priority.	79	2,9241	,88827
Hiring, promoting, and retaining employees from minority groups.	79	3,0886	,80368
Adopting flat organizational structure.	79	3,2405	,68342
Providing diversity education and trainings.	79	3,0253	,83166
Providing continuous learning of employees' by offering opportunities for skills and competence development.	79	3,7342	,44459
Employees' having freedom to be themselves at work.	79	3,8861	,31975
Respecting differences of individuals (including gender identity, ethnicity, age, educational background, etc.)	79	3,8354	,37315
Not tolerating sexual discrimination/harassment.	79	3,9620	,19236
Respecting work-life balance.	79	3,8987	,30361
Providing the possibility to work remotely.	79	3,7468	,46598
Equal pay for the same work regardless of gender or gender identity.	79	3,8608	,41554
Providing the possibility to refuse work early morning/late evening without negative consequences.	79	3,5696	,59233
Measuring and sharing progress on gender diversity.	79	3,0127	,82421
Alignmening organizational values and goals.	79	3,3418	,63823
Trusting employees and giving responsibility to them.	79	3,7975	,40445
Reducing gender-biased language.	79	3,2785	,74999
Valid N (listwise)	79		

5.2 Testing the hypotheses

Hypotheses were tested by using independent samples t-test, linear regression analysis, and two-way ANOVA as described below.

5.2.1 Hypothesis 1

The first hypothesis “The intended retention time of female IT employees varies between those with less than five years of experience in IT field and those with more

than five years of experience in IT field.” was tested with independent samples t-test to examine whether the means of the two groups differ from each other. Table 4 shows the mean values of each group. The mean of the intended retention time of female IT employees with less than five years of experience in the IT industry is 3,8 years (Std. Deviation 2,31) and 4,6 years for those with more than five years of experience in the IT industry (Std. Deviation 4,22). However, table 5 shows that the p value is 0,309 which means it is not statistically significant. In addition, the confidence interval shows that the values cross the zero as the lower value is negative and upper value is positive and thus, there are no differences between the groups. Therefore, the first hypothesis is not supported by the results of the research.

Table 4. Group Statistics.

Group Statistics

	Employment_length	N	Mean	Std. Deviation	Std. Error Mean
Predicted_retention	0-5 years	35	3,800	2,3111	,3906
	over 5 years	44	4,614	4,2218	,6365

Table 5. Independent Samples t-test.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Predicted_retention	Equal variances assumed	2,738	,102	-1,024	77	,155	,309	-,8136	,7947	-2,3961	,7689
	Equal variances not assumed			-1,090	69,098	,140	,280	-,8136	,7468	-2,3034	,6761

5.2.2 Hypotheses 2 and 3

The second hypothesis “High level of job satisfaction has a positive effect on women retention in the global IT industry.” and third hypothesis “Implemented highly inclusive organizational practices have a positive effect on women retention in the global IT industry." were tested with linear regression analysis. The outlier value was removed by

changing the outlier value to the nearest non-outlier value and the independence of the errors was checked by Durbin-Watson. The Durbin-Watson value in H2 was 1,852 and in H3 1,917 and thus the independence of observations has been met.

Table 6 shows that there is a statistically significant relationship between job satisfaction and predicted retention time. The t-test is significant (p=0,003) and the coefficient shows that job satisfaction positively effects to the intended retention time (β=0,333). Therefore, the second hypothesis is supported.

Table 6. H2 Coefficients.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-2,062	2,005		-1,028	,307	-6,054	1,930
	Job_satisfaction	1,962	,633	,333	3,101	,003	,702	3,221

a. Dependent Variable: Predicted_retention_time

Table 7, on the other hand, shows that the significance level is 0,052, which means that the results are not statistically significant. Thus, the used predictor does not affect the outcome more than if other variables were used as predictor variables. This is supported by the t-test showing that the lower bound and upper bound cross the zero level. Therefore, there is no significant relationship between implementation of highly inclusive organizational practices and intended retention time, and third hypothesis can be interpreted as not supported.

Table 7. H3 Coefficients.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	,032	2,074		,016	,988	-4,097	4,162
	IImplementation_of_inclusive_org._practices	1,367	,691	,220	1,977	,052	-,010	2,744

a. Dependent Variable: Predicted_retention_time

5.2.3 Hypothesis 4

The fourth hypothesis, “Regardless of the cultural environment, women who perceive highly inclusive organizational practices to be well implemented in the organization have higher job satisfaction than women who perceive highly inclusive organizational practices to be poorly implemented in the organization.”, was tested with two-way ANOVA. The implementation of inclusive organizational practices was divided in two categories based on the average value of responses. Responses with a mean between 0 and 2,999 were classified as poorly implemented (N=38) and responses with a mean between 3 and 4 were classified as well implemented (N=41).

The means of the responses can be seen in Table 8. The mean of the responses in the category 1, “poorly implemented”, was 2,91 (Std. Deviation 0.47) in Finland and 2,87 (Std. Deviation 0,17) in Poland. Including both Finns and Poles, the mean was 2,91 (Std. Deviation 0,44). In category 2, “well implemented”, the mean of the responses was 3,30 (Std. Deviation 0,40) in Finland and 3,55 (Std. Deviation 0,24) in Poland, and the mean of total responses was 3,35 (Std. Deviation 0,39).

Table 9 shows, that the implementation of inclusive organizational practices has a significant positive effect on job satisfaction (p=0.001). However, the location does not significantly affect on job satisfaction (p=0.457). The R Squared shows, that the whole model explains 24,3 % of the variation in the job satisfaction. Therefore, employees who perceive inclusive organizational practices poorly implemented are less satisfied than employees who perceive inclusive organizational practices well implemented. The location, on the other hand, do not affect to job satisfaction.

In conclusion, when highly inclusive organizational practices are perceived well implemented, the job satisfaction is higher in both locations, and thus, the fourth hypothesis is supported. However, the distribution between locations was uneven, which may affect the results.

Table 8. Descriptive Statistics.

Descriptive Statistics

Dependent Variable: Job_satisfaction

Location	Implementation	Mean	Std. Deviation	N
Finland	1,00	2,9141	,47071	33
	2,00	3,3039	,40091	34
	Total	3,1119	,47575	67
Poland	1,00	2,8667	,17280	5
	2,00	3,5476	,23500	7
	Total	3,2639	,40488	12
Total	1,00	2,9079	,44172	38
	2,00	3,3455	,38665	41
	Total	3,1350	,46653	79

Table 9. Tests of Between-Subject Effects.

Tests of Between-Subjects Effects

Dependent Variable: Job_satisfaction

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4,132[a]	3	1,377	8,042	<,001
Intercept	396,392	1	396,392	2314,511	<,001
Location	,096	1	,096	,558	,457
Implementation	2,848	1	2,848	16,628	<,001
Location * Implementation	,211	1	,211	1,230	,271
Error	12,845	75	,171		
Total	793,417	79			
Corrected Total	16,976	78			

a. R Squared = ,243 (Adjusted R Squared = ,213)

6 Discussion

In this chapter, the results of the thesis are combined to answer the research questions "Does higher job satisfaction improve women's retention in the global IT industry?" and "What is the relationship between job satisfaction and inclusive organizational practices among female employees in the global IT industry?". The results of the thesis show that high job satisfaction has a positive effect on the retention of women in the IT industry and that, regardless of the culture, job satisfaction is higher when highly inclusive organizational practices are perceived as well implemented. However, there is no significant relationship between implementation of highly inclusive organizational practices and intended retention time. In addition, it was noted that the length of the experience in IT field does not affect to the intended retention time. Next, the results are discussed in the light of the literature, and finally the practical implications of this thesis are presented.

6.1 Job satisfaction and retention

In this thesis, the relationship between job satisfaction and job retention was tested. Job satisfaction was examined by utilizing Herzberg's two-factor theory, as the two-factor theory provides a comprehensive set of factors for studying job satisfaction (Yussof et al., 2013). The current state of the respondents' job satisfaction was relatively good, as the mean of all responses on a scale of 1-4 was 3,14. In addition, the mean of the respondents' intended retention time was 4,25 years, and there were no statistically significant differences between those with less than five years of experience in the IT industry and those with more than five years of experience in the IT industry. As discussed in the theoretical review section, in IT sector, employee's turnover rate is relatively high, 13,2 %, and the median tenure is relatively low, as the median tenure for example for Amazon employees is one year whereas the median tenure of Google employees is 1,1 years (Johnson, 2018). Furthermore, it was stated that women leave tech roles 45 percent more than men (McCain, 2022). Only female

and non-binary employees were included in this thesis, and the results were better than expected.

However, this thesis argued that high job satisfaction has a positive effect on job retention, and the theoretical review presented several studies that support this claim. For example, according to Lee (2017), job satisfaction is the most important antecedent of employee turnover (Lee et al., 2017), while Saridakis et al. (2020) suggest that job satisfaction significantly affects organizational commitment (Saridakis et al., 2020). Furthermore, Kang et al. (2021) research shows that higher job satisfaction increases organizational commitment (Kang et al., 2021) and retention, in turn, is the result of organizational commitment (Zangaro, 2001). Since the average job satisfaction of both groups, respondents who worked in IT industry for less than 5 years (average job satisfaction 3,2) and more than 5 years (average job satisfaction 3,1), was relatively high, it may increase the intended retention time. It can therefore be assumed that, despite the length of work experience in the IT industry, high job satisfaction improves women's intended retention time in the IT sector. This is valuable information, because as it is stated in this thesis, multinational IT companies struggle with high turnover (Johnson, 2018), women leave technology roles more than men (McCain, 2022) and the first years are crucial in retaining women in IT (Needle, 2021; Gupta, 2022).

In addition, the relationship between job satisfaction and women retention in the IT industry was tested with linear regression analysis. As stated above, the theoretical review discussed that there is considerable evidence that high job satisfaction has a positive effect on retention (Lee et al., 2017; Saridakis et al., 2020; Kang et al., 2021), which is also supported by the findings of this thesis. The results show that higher job satisfaction has a positive effect on intended retention time, and thus the results are in line with previous studies. However, the results of this thesis expand the literature related to the topic, as previous research on the retention of women in the IT field has focused on women who have worked in the field for a long time or who have reached senior positions. Furthermore, there has been a lack of academic research on European

IT industry and women's retention, whereas this study includes women from all career stages and from two European countries.

6.2 Inclusive organizational practices

According to the previous studies presented in the theoretical review, the level of inclusivity in organizations directly affects how women experience their work and how long they want to stay at their job (Women in Tech, 2021). It was also discussed that employee empowerment has a positive effect on job satisfaction and organizational commitment, and that women's empowerment and involvement in decision-making results in higher job satisfaction (Agrawal & Srivastava, 2018, pp.140-142). Based on the above studies, it was assumed that regardless of the cultural environment, women who perceive highly inclusive organizational practices to be well implemented in the organization have higher job satisfaction than women who perceive highly inclusive organizational practices to be poorly implemented in the organization. The findings of the thesis are in line with prior studies, as the results show that when the highly inclusive organizational practices are perceived as well implemented, job satisfaction is higher in both locations, Finland and Poland. However, it is relevant to mention that only a few studies have been conducted to understand the impact of inclusive workplace culture on women's success at work in the IT sector, and therefore it can be stated that the results of this thesis strengthen previous research findings related to the topic.

What was interesting about the findings was that there was no significant relationship between the implementation of highly inclusive organizational practices and intended retention time, although it was found that well implemented highly inclusive organizational practices have a positive effect on job satisfaction and that higher job satisfaction increases retention. However, in the open-ended question asking the respondents the reasons for either staying or leaving the company, some of the reasons for leaving the company overlapped with inclusive organizational practices. For example, the feel-

ing that career development and goals cannot be achieved in the company, project values are not in line with personal values, and DEI and sustainability are not the company priorities were cited as reasons for leaving the company, and these reasons are related to inclusive organizational practices. Additionally, Gillham (2000) argues that statistical significant results are strongly related to sample size and the larger the sample, the more likely the statistics are significant (Gillham, 2000, p. 87). As the sample of this study is relatively small (n=79) and the level of significance was still relatively close to significant results (p=0,052), the relationship between the implementation of inclusive organizational practices and intended retention time should be further investigated with a larger sample size to make the results more reliable.

6.3 Practical implications

First, organizations operating in the IT industry should invest in improving women's job satisfaction. Many IT companies have recognized the importance of diversity and are aiming to narrow down the gender gap (Hupfer et al., 2022; TietoEvry, 2021a; SalesForce, 2022), but the IT industry still struggles with a relatively high turnover rate (Johnson, 2018), with women leaving technical roles significantly more often than men (McCain, 2022). The results of this thesis show that high job satisfaction increases women’s intended retention time in the IT industry, and furthermore, the results suggest that high job satisfaction increases women’s retention in the IT industry, regardless of the length of work experience in the IT industry. This is important information, because the first years are crucial for retaining women in the IT industry (Needle, 2021; Gupta, 2022).

Second, in order to improve women's job satisfaction, IT companies should focus on investigating how well employees perceive their organization's highly inclusive organizational practices to be implemented, because the findings of the thesis show, that well implemented inclusive organizational practices increase job satisfaction. Furthermore,

these results can be utilized globally, as highly implemented inclusive organizational practices were found to increase job satisfaction in both locations, Finland and Poland, where the culture of gender equality differs significantly from each other. This can be considered a significant implication of this study, as previous studies have not included an international perspective.

Finally, the results of this study are useful to the company whose employees were involved in this study. The research revealed the main reasons why female employees leave or stay in the company, how well female employees perceive the implementation of inclusive organizational practices in the organization and which inclusive organizational practices female employees consider most important. Therefore, the results provide managers and HR with useful information to improve the company's practices and concrete insights on which inclusive organizational practices should be developed in the company to increase women's job satisfaction.

7 Conclusion

This thesis focuses on the gender diversity in the IT sector. When defining the main goal of the thesis, it was found that the importance of diversity is commonly acknowledged, but still many companies are making slow progress in gender diversity in their workforce (Dixon-Fyle et al., 2020). In addition, it was found, that previous studies on how to attract more women into the IT field have been conducted, but little is known about how they could retain women as employees. Therefore, the main goal of this thesis was to understand, whether management of job satisfaction could help to retain female employees in the IT industry and investigate the relationship between inclusive organizational practices and job satisfaction of women in the IT sector.

In the theoretical review section, it was found that studying job satisfaction in order to improve it is vital for organizations. Studies show that more satisfied employees are more productive and ready to serve beyond their job description. In addition, they positively express their organization and cooperate with their colleagues. (Fazriyah et al., 2018, p. 201.) Furthermore, it was found that job satisfaction significantly affects organizational commitment (Saridakis et al., 2020) and since retention is a result of organizational commitment (Zangaro, 2001), it can be stated that high job satisfaction is also crucial for employee retention. The results of this thesis support these findings, as the results show that higher job satisfaction has a positive effect on the intended retention time of women working in IT industry.

In addition, in the theoretical review it was found that there are only few studies on the effects of inclusive workplace culture on women's success at work. However, the prior studies show that the level of inclusiveness in organizations directly affects how women experience their work and how long they want to stay at their job (Women in Tech, 2021). Therefore, it was hypothesized that regardless of the cultural environment, women who perceive highly inclusive organizational practices well implemented have higher job satisfaction than women who perceive highly inclusive organizational practices poorly implemented in the organization. The results of the thesis show that

female IT employees who perceive highly inclusive organizational practice as well implemented are more satisfied than employees who perceive highly inclusive organizational practices as poorly implemented in both locations in Poland and Finland, and thus the results of this thesis strenghten previous research results related to the topic.

However, the results of this thesis show that implemented highly inclusive organizational practices do not affect the intended retention time of female IT employees, although it was found that well implemented highly inclusive organizational practices have a positive effect on job satisfaction, and that high job satisfaction increases retention. However, the cited reasons for leaving the company overlapped with inclusive organizational practices, and therefore it can be assumed that the relationship between the implementation of inclusive organizational practices and intended retention still exists, which is supported by the fact that the sample of this study was relatively small (n=79) and the significance level of the above relationship was still close to significant results (p=0,052). According to Gilllhan, statistical significance results are strongly related to sample size and the larger the sample, the more likely the statistics are significant (Gillham, 2000, p. 87) and thus the relationship between the implementation of inclusive organizational practices and the retention of women in IT should be further investigated with a larger sample.

Finally, this thesis provides additional information to previous studies on the retention of women in the IT sector. Research on job retention and job satisfaction in the IT industry is limited, and therefore investigating the relationship between these factors was relevant. In addition, while doing this thesis, it was found that there is a lack of academic research on the European IT industry and the retention of women, and that previous studies that have investigated the importance of inclusive organizational practices for women's job satisfaction have primarily focused on one location and have not covered an international perspective. However, this study involved employees

from different European countries and cultures, so the results of this thesis can be considered unique.

Overall, when examining the retention of women in the IT industry and the role of job satisfaction and inclusive organizational practices in retaining women, it can be suggested that organizations should investigate how well employees perceive their organization's highly inclusive organizational practices to be implemented. Well implemented highly inclusive organizational practices improve women's job satisfaction, and better job satisfaction in turn increases women's job retention.

7.1 Limitations of the study and further research proposals

There are some limitations in this study that should be noted. Firstly, the sample size was limited to employees of one company, and therefore the results cannot be applied to the IT industry in general. In addition, the distribution of Finnish and Polish employees who responded to the survey was uneven, as 67 of the respondents were Finnish and 12 were Polish. Secondly, the data collection method has some limitations. According to Saunders et al. (2007), when data is collected through surveys, it is probably not as wide-ranging as data collected through other research strategies, because the number of questions in questionnaires should be limited in order to achieve the highest possible response rate (Saunders et al., 2007, p. 139). In addition, although the questionnaire was simple, it is still possible that respondents interpreted the questions in different ways and thus gave differing answers. Finally, since the sensitive questions related to job satisfaction and intended retention time were asked in the questionnaire, respondents may have softened the truth to avoid conflict with the organization, even though respondents were reminded that all responses would be collected and processed anonymously.

Based on the above, there are three suggestions on what further research should focus on. First, it can be stated stated that more research is needed with a larger sample to

make the results more generalizable. The sample should have an equal number of respondents from different cultures to improve the reliability of the comparison, and therefore female and non-binary IT workers from different cultures should be included in the study. In addition, it was discovered that there is a lack of academic research on the European IT sector and the retention of women, and to fill this gap, research should focus on the European IT sector.

Second, it was found that there were no statistically significant differences in the intended retention time between those with less than five years of experience in the IT industry and those with more than five years of experience in the IT industry. However, the average job satisfaction of both groups was relatively high, and the results of the thesis show, that high job satisfaction has a positive effect on the retention of women in IT industry. Therefore, it was suggested that, despite the length of work experience in the IT sector, high job satisfaction improves women's intended retention time in the IT sector. However, this relationship was not investigated in depth in this study and thus it is proposed that further research should be conducted on female job satisfaction, retention, and the length of work experience in the IT field.

Finally, it was found that the level of implementation of highly inclusive organizational practices does not affect the intended retention time of female IT employees, although it was found that well implemented highly inclusive organizational practices improve women’s job satisfaction, and that higher job satisfaction may result to better retention. Therefore, it can be suggested that the relationship between the implementation of highly inclusive organizational practices and the retention of female IT employees should be further investigated with a larger sample.

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