What Makes Talent Stay?

Enhancing the Retention of IT Knowledge Workers

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Abstract

Background: As employees have become one of the key assets providing companies competitive advantage, the importance of talent retention has grown. This holds true especially in industries such as information technology, where firms not only have to adapt to the needs and expectations of Generation Y but are also experiencing a substantial shortage of knowledge workers.

Purpose: The goal of this thesis is to first gain an understanding of what tools and techniques Finnish IT companies are using to approach the topic of retention, a process guided by theory. The existing literature and empirical findings are then combined to create a model for enhancing the retention of IT knowledge workers.

Method: Empirical data was generated through interviews with ten Finnish IT firms employing knowledge workers, all different in terms of organizational characteristics and retention approaches. Template analysis was then used to infer meaningful findings from the data.

Conclusion: The results show that retention of IT knowledge workers should be approached holistically. There are five categories (Training and Development; Compensation and Benefits; Flexibility and Work-life Balance; Organizational Culture; and Organizational Prestige) that must all be given thought to before implementing retention tools and techniques identified as most suitable for the specific organizational context.
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1. Introduction

This section contains an overview of challenges in the modern business environment and presents the importance of retention. The research question and purpose of this thesis are also stated.

1.1 Background

Business organizations are facing several challenges in the globalized world. In addition to economic trends, globalization affects the business environment through demographic changes. As people live longer and birth rates are on the decline in the developed world (Beechler & Woodward, 2009; Eversole, Venneberg, & Crowder, 2012; Horwitz, Heng, & Quazi, 2003), numerous countries are currently under the replacement rate needed to preserve the current level of population (Beechler & Woodward, 2009). Simultaneously, as the largest generations are nearing the age for retirement (Eversole et al., 2012), the mobility of workers increases, and geographic boundaries become less of a constraint, there is a need to compete for talent internationally. Companies are facing a shortage of skilled employees, a problem which has been dubbed as “the war for talent” (Earle, 2003; Horwitz et al., 2003; Schuler, Jackson & Tariqe, 2011).

It is crucial for companies to stay competitive, and intellectual capital is an important way of gaining a competitive advantage and accomplishing sustainable growth (Earle, 2003; Schuler et al., 2011; Tariqe & Schuler, 2010). However, as a result of the war for talent, attracting talented workers is not only more difficult, it is also becoming increasingly costly (Horwitz, et al., 2003). On top of recruitment becoming increasingly challenging, turnover generates numerous costs to the company. When an employee voluntarily leaves their job, the company faces direct costs, associated with recruiting a new employee to replace the lost human capital for example, and indirect costs such as those related to loss of intellectual capital and decreased customer satisfaction (Frank, Finnegan, & Taylor, 2004). Losing key employees and their skills has a direct impact on organizational costs, productivity, and business performance, making retention both an operational and a strategic issue (Glen, 2006). Research has found that the cost of turnover of trained employees is high, and in cases where there are a large number of employees or
employees in expert roles involved, the total cost can become substantial (Earle, 2003; Samuel & Chipunza, 2009). Considering these facts together, it is clear that reducing turnover and retaining talented workers is essential for companies’ long-term success.

Another layer of complexity to retaining employees has been created by Generation Y’s entrance to worklife, with the generation soon making up over half of the global workforce (Eversole et al., 2012). Generation Y, or Millennials, commonly refers to individuals born between the early 1980’s and mid 1990’s, and they have decidedly different attitudes, ideas, and expectations about work than the generations before them (Aruna & Anitha, 2015; Earle, 2003). Generation Y employees tend to be more opportunistic, feeling loyal to the job instead of the company (Aruna & Anitha, 2015; Kyndt, Dochy, Michielsen, & Moeyaert, 2009), and to hold a mindset of an investor rather than an asset, seeking best return for their time and energy (Aruna & Anitha, 2015).

The information technology (IT) industry in particular has been experiencing a shortage of talent, specifically regarding knowledge workers. The term “knowledge workers” refers to employees who have specialized skills gained through education and high cognitive power, through which they are capable of abstract reasoning (Horwitz et al., 2003). They, especially the engineering, scientific, and technical talent, are currently highly sought after as human capital has increasingly become the most valuable asset for technology-focused companies (Baron, Hannan, & Burton, 2001). This shortage is an issue frequently brought up by the media. For example, TechRepublic states that an estimated one million jobs in computer programming are expected to go unfilled by 2020 in the US alone (DeNisco Rayome, 2017). This trend is prevalent even in significantly smaller countries, such as Finland, which is for example currently facing a shortage of over 9,000 coders ("Koodariipula on hälyttävän suuri", 2018). Similarly, the World Economic Forum (2016) reports that as the number of jobs decreases in other sectors, IT professionals such as data analysts, software and applications developers, engineers, and architects will continue to be in high demand across multiple industries, with recruiting becoming even more challenging. It can therefore be argued that the matter of retention is a crucial part of talent management for companies in this sector.

A wealth of previous research can be found on topics such as general talent management challenges and human resource approaches (Hausknecht, Rodda, & Howard, 2009;
Samuel & Chipunza, 2009), global talent management (Schuler et al., 2011), talent management and culture (Eversole et al., 2012; Kontoghiorghes, 2016), employee perception (Pattnaik & Misra, 2014) and engagement (Frank et al., 2004), and strategies to motivate, attract and retain knowledge workers (Horwitz et al., 2003) in connection to retention. Much of this literature has approached retention as a general topic, and while there are some empirical studies, they have mostly focused on the public sector and industries such as hospitality and tourism. Some studies have been conducted on companies operating in IT, but the focus has been on specific countries and issues beyond employee retention, such as recruitment.

Further, most of these have been published during the previous decade, after which there have been major changes in technology, the world economy, and the amount of Generation Y employees in the workforce. Therefore, while retention has been studied for some decades, the changing operating environment and workforce present a need for new research that provides data on what companies are currently doing to overcome the current challenges pertaining to retention. Many of the studies underline the importance of country, industry, and company context, and so there is no single effective model for retention (Beechler & Woodward, 2009; Earle, 2003; Frank et al., 2004). Due to the significance that context bears, this study also focuses on firms hailing from and operating in a specific country, Finland. Finland has a notable and growing IT sector and offers a novel perspective to the issue not previously studied in a North-European context.

Retention can be approached through a strategic or an operational mindset. Strategic management is long-term and determines the direction of corporate development. It takes place on a higher level than operational management (Hungenberg, 2014), and in the context of this thesis, this would mean looking into retention management at a general level and researching how it functions in liaison with other company goals. On the other hand, the aim of operational management is to formulate goals and their measures for individual organizational departments (Hungenberg, 2014). It looks at concrete actions (Hungenberg, 2014), meaning various tools and techniques that organizations use. In this thesis, the chosen perspective is the latter, as the focus is on how companies in the IT industry ensure the satisfaction of their knowledge workers and minimize dysfunctional turnover through the application of different retention tools and techniques. The research is strongly guided by theory, with an empirical study designed around a specific model.
created on the basis of existing research. However, to offer an additional theoretical contribution, the model is developed further based on the empirical findings. This thesis therefore seeks to answer the research question of “What are the tools and techniques Finnish IT companies are using for the retention of knowledge workers, and how can they enhance it?”

1.2 Purpose

The subject of retention is comprised of numerous different factors, such as compensation and benefits, work environment, and leadership, all of which are complex and interesting enough to warrant individual studies. However, the focus of this thesis is broad; instead of aiming to understand how one factor affects employee retention, the purpose of this thesis is to firstly map out and present what types of retention tools and techniques are used by companies operating in the IT sector in Finland. Ultimately, the final outcome of the thesis is a new model presenting best practices for retaining IT knowledge workers.

The research problem is studied from the management’s perspective in order to achieve a well-rounded understanding of the existing policies and the thought processes behind them. This study generates current industry-specific information, and contrary to previous studies on the topic, has a Northern-European perspective. Further, the research focuses solely on retention, as opposed to also including attraction practices, to gain a profound understanding on the subject matter. The findings of this study therefore contribute to theory on retention, adding value to the existing literature through building a model based on both previous studies in the field and novel findings arising from the empirical data. The contribution of these findings generates additional depth to the model. Additionally, the research holds practical value for industry professionals seeking to better understand and develop their companies’ retention practices.
2. Theory

This chapter includes the frame of reference of the thesis, starting with the characteristics of the modern business environment and a review of existing literature on retention. The industry context is then described, and finally a model for retention is presented.

2.1 Frame of Reference

2.1.1 The War for Talent

Within the past few decades, the world has become increasingly complex for individuals and organizations alike. Companies have had to adjust to the reality of operating in a “sink or swim” environment that is characterized by constant change and increased competition. While businesses have always fought for customers, many of them are now also competing for top talent, a global phenomenon which has been named as the War for Talent (Beechler & Woodward, 2009; Horwitz et al., 2003).

The concept was conceived in the late 1990’s, when McKinsey & Company published a report claiming that there would soon be a shortage of executives and predicting that talented employees would be one of the most important resources over the next two decades. While they used the term talent to refer to top performers, the word has since then largely become a synonym for the entire workforce (Beechler & Woodward, 2009). Ulrich (2008) defined talent more holistically, as according to him talent refers to individuals with the knowledge, skills and values in demand today and tomorrow, with commitment towards the company’s success. Further, they contribute to this goal through their work, which they find meaningful. With this definition, the War for Talent can be framed as the drive for businesses at a global scale to find, develop, and retain individuals who have the required competencies and commitment, and who can find purpose in their role within the company (Beechler & Woodward, 2009).

Today, more than twenty years after the report was published, the shortage of talent continues, and companies operate in an environment where recruiting and retaining employees is challenging. The growing pressure from globalization, technological and macroeconomic changes, demographic trends, and the increased need for knowledge workers have all contributed to an immense misalignment of supply and demand of
knowledge workers in the IT industry. Next, the term knowledge work and what kind of a worker counts as a knowledge worker are briefly discussed in order to provide a clear understanding of the type of employees this thesis focuses on.

2.1.2 Knowledge Workers

As mentioned before, many countries are unable to maintain their current level of population. The largest generations are nearing the age of retirement and the urgent need for talent to support companies’ current and future success is underlined (Frank et al., 2004). Since the beginning of the Information Age in the early 1980’s, there has been a shift in how dependent companies are on their employees. For the first time, they have no longer had an abundance of resumés to choose from, causing companies to differentiate between the need for simply more people, and the specific need for skilled employees (Earle, 2003). The economy, once product-based, has changed to knowledge-based (Beechler & Woodward, 2009). The concept of the knowledge economy is grounded in the generation, distribution, and usage of information and knowledge (Sabau, 2010). Consequently, human capital and especially knowledge workers are now often the most valuable asset in technology-focused companies (Baron et al., 2001).

Knowledge work has been described as being of an intellectual nature, with well qualified employees forming a significant part of the workforce (Horwitz et al., 2003). Knowledge workers refer to employees who work primarily with information or knowledge (Huang, 2011). Although workers in general have had to become more knowledgeable than before in order to perform their tasks well, knowledge workers are differentiated by having high cognitive power and special skills developed through extensive education and training, and by being technologically literate as well as capable of abstract reasoning (Horwitz et al., 2003; Tarique & Schuler, 2010). They have the ability to work with data through observation, synthetization and interpretation, and they are able to co-create and communicate novel ideas as well as facilitate their implementation (Horwitz et al., 2003). Through these skills, knowledge workers can significantly impact the company’s success (Tarique & Schuler, 2010), and examples of knowledge workers in the IT industry include researchers, programmers, web designers, system analysts, and technical writers (CFI Education Inc., n.d.). In addition to the description above, in our context knowledge workers refer specifically to individuals working in the information technology industry,
who spend the majority of their time in close cooperation with technology and utilize their skills to perform non-repetitive tasks (Horwitz et al., 2003).

2.1.3 Generation Y
Globalization has unarguably made the work environment more connected and international, and a variety of different cultures, markets, employees, and forms of working have been brought together. In addition to the increased diversity in national and cultural terms, companies have also had to adjust to additional diversification caused by a new generation entering the workforce in full (Beechler & Woodward, 2009). It has been found that people born in the same period of time have a common history, which creates similar experiences and can affect the attitudes, behaviors, and the way of working (Beechler & Woodward, 2009; Glazer, Mahoney, & Randall, 2019). This means that generations differ from one another, and there can be a high contrast in expectations and values from employees belonging to different generational cohorts (Beechler & Woodward, 2009).

Generation Y, born between the early 1980’s and mid 1990’s, now accounts for the largest proportion of the prime age labor force (Eversole et al., 2012; Lee, Hom, Eberly & Li, 2017), and is consequently the main employee demographic of the companies examined in this study. Generation Y, also known as Millennials, have decidedly different characteristics than their predecessors, affecting the effectiveness of established retention strategies (Aruna & Anitha, 2015). They have distinct thoughts about how the workplace should be, what it should offer, and how leaders ought to act (Glazer et al., 2019). While Generation Y has been characterized as exemplifying the values of hard work and social consciousness, they also have high demands in terms of individual treatment and flexibility in the workplace, to cater to their independent nature and need for a work-life balance (Aruna & Anitha, 2015; Eversole et al., 2012; Guthridge, Komm, & Lawson, 2008). These employees want to belong to a company that is energetic, innovative, fosters creativity, and which they feel values both them and their ideas (Aruna & Anitha, 2015; Earle, 2003).

Generation Y expects a great deal when it comes to their work environments, and have no trouble leaving the company if they are dissatisfied. Compared to prior generations, they are less committed to the workplace and employers, instead feeling more loyal to the
job itself, wherever that may be (Aruna & Anitha, 2015; Glazer et al., 2019). With their different mindsets and expectations, Generation Y poses a challenge in terms of retention (Aruna & Anitha, 2015; Guthridge et al., 2008; Lee et al., 2017), and therefore it is important that retention strategies are re-examined through the perspective of this generation’s characteristics.

2.2 Retention

In the knowledge-based and competitive labor market, attracting, motivating, and retaining knowledge workers has become essential (Horwitz et al., 2003). This is because of the fact that when human capital is the greatest asset of a business, effective management of employees becomes crucial to building a sustainable competitive advantage (Cardy & Lengnick-Hall, 2011; Tarique & Schuler, 2010). To achieve this end, talent management has globally become an important competitive tool (Beechler & Woodward, 2009; Kontoghiorghes, 2016). Talent management is generally viewed as a strategic integrated approach with the main purpose of attracting, developing, motivating, and retaining talent in order to achieve the goal of enhancing organizational performance and competitiveness (Kontoghiorghes, 2016; Van Dijk, 2008). To be effective, it should be integrated into the long-term business strategy, rather than be seen as a short-term, tactical approach (Guthridge et al., 2008). In this thesis, we focus on only one aspect of talent management in detail: retention.

Companies continue to be affected by the war for talent, with retaining in-house talent becoming even more important due to the increased challenge and cost of attracting new employees. As Herman (2005) points out, when there are difficulties in attracting talent, retention is the most productive policy. While recruitment activities are excluded from this thesis as they are beyond the scope of this research, it should be noted that a thorough recruitment process is the first step towards increased retention. Despite this positive relationship between realistic recruitment and retention (Deery, 2008; Samuel & Chipunza, 2009; Lee et al., 2017), even the most successful recruitment techniques will be in vain if retention strategies are not firmly integrated into the firm’s processes (Earle, 2003).

Employee retention refers to the employer’s effort to keep desirable workers within the organization, so that business objectives can be met (Frank et al., 2004). Employees can
leave a company either voluntarily or involuntarily. Involuntary turnover, where the employer decides who is laid off and when, is naturally much easier to manage than voluntary turnover, where an employee chooses to leave the company by their own volition (Lee et al., 2017). A further distinction can be made for two types of voluntary turnover: functional and dysfunctional. In cases of functional turnover poor performers leave the organization, and this occurrence can in fact improve organizational performance. However, it should be kept in mind that excessive turnover of any kind can be damaging to productivity. Conversely, dysfunctional turnover refers to situations where the company has failed to retain top talent, and good performers leave while poor performers stay (Ghosh, Satyawadi, Prasad Joshi, & Shadman, 2013). This thesis focuses on preventing dysfunctional voluntary turnover, as it has the most harmful effects on the well-being of a business.

Here, it is important to address the difference between the two closely related concepts of retention and turnover. Much of the existing research has focused on employee turnover, where the goal is to identify factors causing employees to leave an organization. The amount of literature focusing on retention, meaning how an employee decides to stay and the determinants of the retention process, is more limited. This distinction is noteworthy, as the reasons why employees leave an organization may be different from the reasons why they stay (Cardy & Lengnick-Hall, 2011; Prabhu & Drost, 2017). Employees may leave because of family situations or job offers or to pursue new opportunities, and there may be cases where voluntary employee turnover is unavoidable no matter the measures that management takes (Cardy & Lengnick-Hall, 2011; Lee et al., 2017).

What can be done, however, is to focus on factors increasing employee commitment to stay, such as the organizational culture and opportunities for personal development (Cardy & Lengnick-Hall, 2011). While retention and turnover have conceptual differences, at the operational level they have an inverse relationship: if a company has poor retention practices, they will experience a higher turnover rate (Cardy & Lengnick-Hall, 2011). The term “turnover” is therefore used in this thesis according to its most common usage: to describe instances where an employee, whom the employer would have preferred to keep, has voluntarily left the company (Frank et al., 2004).
There is no doubt of the importance of retention. What is not as clear, however, is how to best retain the skilled employees within companies. Much research has been devoted to this topic, but no universal model for best practices has been established. Next, we discuss the relevant characteristics of the context for this study, which have guided us in choosing a theoretical framework to build our research on.

2.3 Industry Context
As mentioned before, the effectiveness of retention practices is dependent on the context. In this case, the main characteristic affecting the formulation of a retention strategy is the industry that the companies included in the study operate in: information technology. In their study on knowledge workers, Horwitz, et al. (2003) found that not all retention strategies are equally effective across different industries. Their findings indicated that IT workers operate in a different context, and the factors motivating them so stay in their current jobs are different from those that motivate other types of knowledge workers.

Agarwal and Ferratt (2002) have also found that best practices on how to retain productive employees, even at the same occupational level, are not always directly applicable to the world of IT. This is due to the unique characteristics of the talent and the profession itself, examples of which include the volatile technological environment and the labor market situation (Agarwal & Ferratt, 2002). These studies illustrate how practices from other industries are not directly applicable for IT companies, and different, innovative approaches are needed instead. Additionally, since 75% of employees in the IT sector are under 45 years of age (Gupta & Singh, 2018), these companies in particular are characterized by being largely populated by employees and managers belonging to Generation Y. Therefore, retention strategies proven effective in the past may have to be readjusted to meet the needs and expectations of the modern labor force.

To sum up, the target group of this study is differentiated by the fact that the IT sector requires tailored retention practices in order to retain their knowledge workers, who have specific characteristics and mostly belong to Generation Y. Finally, as the already high demand for these valuable employees in projected to only grow in the future, holding on to the in-house talent is crucial for the companies’ continued success. Based on this set of factors, we set out to formulate a comprehensive retention model suitable for the industry in question.
2.4 Model for Retention

Several models have been developed to tackle the issue of retention, but there is no single effective model for it. To answer our research question, we drew upon the existing body of research. In particular, two retention models were used in creating a new model to fit our specific purposes. The first model is from Hausknecht, Rodda and Howard (2009). Titled as a “12-factor model”, it features twelve separate factors affecting employee retention (Figure 1). This model was chosen because the authors examined the main theories over the past fifty years when creating it. In addition to the strong influence of previous research, it was tested on a large number of employees in the leisure and hospitality industry. However, this model has two major limitations in terms of its application to this research project, making it inadequate on its own.

First, the model is built on the employees’ perspective, including factors external to the employers’ span of control. As a result, the factors of Constituent Attachments, Nonwork Influences, and the Lack of Alternatives are not directly appropriate as they cannot effectively be evaluated or addressed by the employer. These three dimensions were consequently excluded from the model. The rest of the retention factors were taken to form the foundation of our model. However, Job Satisfaction and Organizational Commitment proved to be unsuitable to be integrated into the model as well. While they are indispensable for retention, neither can be classified as belonging to tools and techniques. Rather, both are enhanced through the effective application of retention tools and techniques, supporting retention in turn. Additionally, the two are independent outcomes, meaning that employers’ individual retention practices affect them differently. Job Satisfaction and Organizational Commitment are thereby excluded from the model, but due to their high importance to retention, they are briefly discussed at the end of this chapter from the employers’ perspective.

The second shortcoming of the model is that successful retention practices in one context may not be directly translatable to another. In this case, since the model was tested on the leisure and hospitality industry, we identified the need to further adjust it to fit the IT industry. To this end, a second model was chosen.
Figure 1 12-factor model

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<td>Retention Factor</td>
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<tr>
<td>Advancement opportunities</td>
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<td>Constituent attachments</td>
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<td>Extrinsic rewards</td>
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<td>Flexible work arrangements</td>
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<td>Investments</td>
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<td>Job satisfaction</td>
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<td>Lack of alternatives</td>
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<td>Location</td>
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<td>Nonwork influences</td>
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<td>Organizational commitment</td>
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<tr>
<td>Organizational justice</td>
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<td>Organizational prestige</td>
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Source: Hausknecht, Rodda & Howard, 2009

Research by Agarwal and Ferratt (2002) presents a “strategic star” model featuring recommendations for recruitment and retention in IT (Figure 2). This model was found to complement that of Hausknecht et al. (2009), which is lacking the focus on IT professionals. This model has been developed through research on a large number of companies which were chosen because of their success in IT and/or their business performance, or their competence to exceptionally manage their IT human resource. This model covers recruiting, developing, and retaining employees, and therefore is not directly suitable as the focus of this thesis is solely on retention. As a result, the Recruiting Posture was excluded due to being beyond the scope of this research.
As can be seen, some factors from the two models overlap, and others are divided differently. The two models have consequently been merged into a new model specialized for the IT industry, which includes all relevant factors without repeating them. This means that factors with different titles but same content were joined under one category, and while some could be directly adapted, the harmonization of the two models required others to be rearranged into new categories. During this process, the descriptions of each factor were examined in detail to ensure that they could be logically sorted, and their content was not misunderstood.

It should also be noted that the workforce demographics have greatly shifted towards Generation Y after these studies have been published. Therefore, it is important to incorporate updated findings on best retention practices into the model. In the end, a model featuring five different categories contributing to increased retention was created. The five categories are Training and Development; Compensation and Benefits; Flexibility and Work-life Balance; Organizational Culture; and Organizational Prestige.

The names of the categories were designed to be descriptive and simple to grasp. To make the process understandable and transparent, we next describe where each factor from the
two models can be found. First, Training and Development was determined to be one category in order to combine similar factors from both models. It includes Advancement Opportunities from Hausknecht et al.’s (2009) model, and Opportunities for Advancement, Long Term Career Development, Organizational Stability and Employment Security, and Employability Training and Development from Agarwal and Ferrat (2002). Second, Compensation and Benefits was directly lifted from the second model as it is a comprehensive term. It contains Extrinsic Rewards as well as Investments from the first model, alongside Opportunities for Recognition and Performance Measurement from the second.

The third category, Flexibility and Work-life Balance, also combines factors from both models. Here, Hausknecht et al.’s (2009) Flexible Work Arrangements are joined together with Agarwal and Ferrat’s (2002) Lifestyle Accommodations. Fourth, as culture is comprised of an extensive number of factors, the term was coined to bring together the many subcategories from both models that are ultimately related to it. In terms of the first model, this category includes Location and Organizational Justice. From the second, Quality of Leadership, Sense of Community, and Work Arrangements have been integrated. Finally, the category of Organizational Prestige was directly adapted from Hausknecht et al.’s (2009) model, as it stands separate from the rest.

To sum up, it can be said that the five categories (Training and Development; Compensation and Benefits; Flexibility and Work-life Balance; Organizational Culture; and Organizational Prestige) are independent factors, with retention being directly dependent on their successful realization. The categories, visualized in Figure 3, are next discussed in detail by sourcing from relevant theory.
2.4.1 Training and Development

Training and development programs enhance the skills of current employees (Schuler et al., 2011), allowing them to gain new competencies while retaining in their current position (Ghosh et al., 2013). This activity benefits both the company and the employees themselves (Arnold, 2005). On top of increasing their appeal as an employer (Schuler et al., 2011), the firm can obtain competitive advantage through their highly skilled talent (Kyndt et al., 2009). Training and development improve the quality of employees’ performance and has a positive effect on their motivation (Arnold, 2005; Frank & Taylor, 2004; Samuel & Chipunza, 2009). Moreover, it has been found that high quality training and development opportunities translate into higher job satisfaction and intention to stay (Deery, 2008). Put differently, a lack of training and development opportunities can have a negative effect on the employees’ desire to stay in the company, making it an important factor for retention (Arnold, 2005; Ghosh et al., 2013; Samuel & Chipunza, 2009).

This category also includes the training scheme for new employees. On-the-job training for new hires has a positive effect on retention through ensuring that they not only acquire the necessary knowledge and skills for their jobs, but also gain an understanding of the organizational culture (Hinkin & Tracey, 2010). Two additional issues related to this factor that have also been found to be linked to retention are interesting work and career advancement opportunities (Ghosh et al., 2013; Samuel & Chipunza, 2009). For example, Agarwal and Ferratt (2002) found in their study that individuals working in IT were more
likely to stay in their jobs if they were given the opportunity to work on interesting and challenging projects. Similarly, Horwitz et al. (2003) have said that the key factor for retaining knowledge workers in the IT industry is providing challenging work assignments with opportunities for career development.

In the modern labor market where career paths are no longer linear, career development often does not take place within one company. Broadbridge, Maxwell and Ogden (2007) have even found that job security does not motivate talent belonging to Generation Y, as they are not expecting to stay in one company for the majority of their careers. Rather, through the training and development opportunities offered by their current employer, modern knowledge workers expand their competencies and increase their personal marketability in the eyes of other companies (Frank et al., 2004; Horwitz et al., 2003; Lee et al., 2017). Generation Y employees are highly interested in both professional and individual development and strive for continuous progress in their careers (Aruna & Anitha, 2015), making training and development activities essential for meeting the needs of the talent and retaining them.

2.4.2 Compensation and Benefits

Compensation and benefits mean extrinsic rewards that include salary and any other potential remuneration for the work done by an employee (Hausknecht et al., 2009). Since compensation and benefits is one of the most important functions in supporting retention, it is important to communicate related company policies clearly (Arnold, 2005; Earle, 2003). As Arnold (2005) found, the resources spent on recruiting and developing employees may well be wasted if there are significant problems in compensation.

Companies typically have policies for the basic level of compensation and pay systems for bonuses and incentives (Agarwal & Ferratt, 2002). These policies should be kept up to date and adjusted to reflect the economy and its competitive business conditions (Agarwal & Ferratt, 2002; Arnold, 2005; Hausknecht et al., 2009; Schuler et al., 2011). Offering a competitive salary is necessary in order to ensure that key talent stays in the organization (Ghosh et al., 2013), and as Arnold (2005) notes, the entire compensation and benefit system needs to motivate employees. One way to achieve this is designing benefit packages that are adaptable to the needs of individual employees (Agarwal & Ferratt, 2002; Arnold, 2005).
Childcare, health care coverage, and saving and investment plans are all benefits that employees place weight on when determining whether to join another company or not (Arnold, 2005). Non-financial benefits can be highly effective as well, with additional recognition practices such as birthday cards, welcome baskets, lunch or dinner out, and getaway weekends increasing employees’ satisfaction and intention to stay (Agarwal & Ferratt, 2002). Investments from the employees’ side, meaning their perceptions about the length of service to the company, also fall under this category. It has been suggested that seniority-related benefits accrued through a long tenure make employees more likely to stay (Arnold, 2005; Hausknecht et al., 2009).

Generation Y tends to expect competitive salaries, and as they view themselves as investors seeking best return for their time and energy, companies need to offer appealing compensation packages to retain them (Aruna & Anitha, 2015). Arnold (2005) and Ghosh et al. (2013) also underline the importance of compensation being directly related to individual performance to achieve a positive effect on motivation and retention. While highly important, it should be kept in mind that compensation is not the sole answer to retention issues. As Lee et al. (2017) point out, Generation Y employees seek something beyond a paycheck from their professional lives: a sense of purpose. Similarly, it has been found that while a competitive salary is essential for retaining IT professionals, they are accustomed to high compensation and so there is a need for developing additional motivational factors to increase their commitment (Horwitz et al., 2003).

2.4.3 Flexibility and Work-life Balance
 Policies on flexibility and work-life balance help to navigate competing requests for the employees’ time (Agarwal & Ferratt, 2002). Today, work-life balance and flexible work practices have become increasingly important (Earle, 2003; Horwitz et al., 2003). This is in part due to the prevalence of families where both parents work, which has increased the importance individuals place on the matter. At the same time, the distinction between work and personal life is becoming muddled (Earle, 2003). While there is no universal overall definition for workplace flexibility (Eversole et al., 2012), the common key elements supporting work-life balance include flexible work schedules and arrangements such as compressed workweeks and job sharing, training and support, breaks during work, health and well-being opportunities, remote work from home or an alternative office, part-time work, provisions for various leaves, and phased retirement programs.
(Deery, 2008; Earle, 2003; Eversole et al., 2012). As with benefits, it should be kept in mind that all employees cannot be managed the same way, since individuals at different life stages have different needs in terms of flexibility (Eversole et al., 2012).

According to Deery (2008), companies should offer a more holistic experience to their employees and focus on creating a balance between their lives at work and at home. Indeed, comprehensive policies on flexibility have a positive effect on job satisfaction, organizational commitment, stress, absenteeism, retention, and performance (Deery, 2008; Earle, 2003; Eversole et al., 2012). For example, in their study on IT professionals, Agarwal and Ferratt (2002) found that arrangements such as telecommuting, flexible hours, and social activities are effective in mitigating the stress and burnout prevalent in many IT jobs. This in turn allows the employees to better balance their personal and professional lives. Overall, previous research has shown that achieving a healthy work-life balance through flexibility holds significance for employee retention (Christensen & Rog, 2008; Ghosh et al., 2013; Kyndt et al., 2009).

Shifting the focus to Generation Y, it has been documented that they demand more flexibility and a better work-life balance than the generations before them (Aruna & Anitha, 2015; Guthridge et al., 2008). Whereas job interference with other life roles has previously not been seen as significant from the employers’ side, Generation Y has shown that they will not stay at a job long-term if it threatens their other life goals such as an avocation, parenting, or volunteer work (Lee et al., 2017). These employees find it important that their employer supports their family and personal lives through flexibility (Aruna & Anitha, 2015). Characterized by high levels of independence, they wish for individual treatment and want to control how, where, and when their work gets done, leading to an increased demand for flexibility in the workplace (Eversole et al., 2012; Hinkin & Tracey, 2010).

2.4.4 Organizational Culture
Organizational culture includes multiple dimensions, including management practices, accountability structures, work styles, corporate values, and the overall culture of the workforce within the firm. The more personal level contains shared values and norms, which are explicit and implicit rules about behaviour and treatment with one another (Earle, 2003). Agarwal and Ferratt (2002) found that successful firms have organizational
cultures where dimensions of productivity and interpersonality were both nurtured. Likewise, other studies have found that a supportive, productive, and exciting culture contributes towards higher motivation and commitment (Arnold, 2005; Earle, 2003; Eversole et al., 2012). Additional characteristics of ethical high-performance cultures are being change-, quality-, and technology-driven, supportive of open communication, and encompassing the core values of respect and integrity (Kontoghiorghes, 2016). These types of cultures aid companies in succeeding in a competitive environment (Arnold, 2005; Beechler & Woodward, 2009; Kontoghiorghes, 2016), and organizational culture has been identified as one of the main factors affecting retention (Earle, 2003; Eversole et al., 2012; Herman, 2005). Due to its complexity, we have divided it into the following three prominent subcategories, through which culture impacts employees.

**Work Environment**

The physical work environment refers to the place where employees do their job (Earle, 2003), provided by their employer to support their performance (Aruna & Anitha, 2015). Since many people spend the majority of their waking lives at their workplace, it is important to create an environment that the employees like (Agarwal & Ferratt, 2002; Earle, 2003; Horwitz et al., 2003). A carefully designed work environment can encourage creativity and motivate employees, consequently influencing retention (Earle, 2003; Ghosh et al., 2013). The location of the company has also been found to affect employees’ decisions to leave or stay (Ghosh et al., 2013; Hausknecht et al., 2009). The physical location of company premises is fairly permanent, but in cases where the location is inconvenient, potential negative effects can be mitigated by flexible arrangements such as working from home, which allows knowledge workers to reduce travel time (Earle, 2003).

The concept of work environment is not limited to the physical space and its location. Companies are made up from individuals, and interpersonal relationships are unavoidable in the organizational context. Further, interdependence between individuals is established through the fact that tasks are often completed more efficiently by working together (Six & Skinner, 2010). In this thesis, interpersonal relationships are termed as the social work environment. The social environment has a significant influence on job performance and satisfaction, connecting it closely to retention (Six & Skinner, 2010).
Seeing the workplace as a space for learning, collaboration, and socializing, employees from Generation Y have expectations for how the work environment ought to be. They require physical comfort, open spaces, social enhancement, and technology (Aruna & Anitha, 2015; Earle, 2003). As this generation values a good physical and social work environment over status and salary, this factor is of high importance in order to retain talent (Aruna & Anitha, 2015).

**Leadership**

The quality of leadership has a substantial effect on organizations, as an inflexible manager can reduce productivity, increase tensions, and make the entire organization appear insensitive (Eversole et al., 2012). Moreover, a single manager whose leadership is poor or doesn’t fit the company's culture can cause a significant employee turnover (Arnold, 2005). It has been proven that employees will leave the company if the leadership is inefficient (Frank & Taylor, 2004; Ghosh et al., 2013). From another perspective, leadership can have a positive effect on employee retention (Khazaal, 2003; Kyndt et al., 2009; Samuel & Chipunza, 2009), and front-line leaders have a significant role in this effort (Frank & Taylor, 2004).

One suggested approach is servant leadership, where the management shifts away from a command and control mindset. This entails leaders and managers no longer controlling their workers, but rather serving as resources to help employees do their jobs and achieve growth (Eversole et al., 2012). This option is supported by research findings detailing how leadership styles distinguished by support, encouragement, respect, and listening to employees enhance retention (Kyndt et al., 2009). A sense of autonomy has also been found to influence the decision to stay with a company (Ghosh et al., 2013; Guthridge et al., 2008; Horwitz et al., 2003).

Employees belonging to Generation Y desire autonomy and independence as well (Aruna & Anitha, 2015; Glazer et al., 2019), and they are more likely to leave a firm with traditional bureaucratic leadership (Glazer et al., 2019). These employees look for transparency, guidance, feedback, clear expectations, and constructive management, as they want to be treated as partners by honest, participative, and open-minded managers (Aruna & Anitha, 2015; Earle, 2003; Glazer et al., 2019).
Organizational Justice

Researches have previously theorized that employees will remain at their jobs and be satisfied if they feel that their inputs and efforts are reflected in the received outcome. Recently, organizational justice has been defined more broadly, containing equity perceptions related to regulations, outcomes, procedures, reward allocations, and interpersonal treatment (Hausknecht et al., 2009).

Employees who perceive that they are treated fairly typically experience higher levels of satisfaction and commitment, and thus are more likely to stay (Gupta & Singh, 2018). It is crucial to note that employees’ perception of justice can be more important than the reality: if an employee feels that their salary and performance appraisals are not fair, it is likely that they will leave the company regardless of the actual state of the matter (Arnold, 2005). In fact, perceived inadequate compensation is often cited as one of the most important reasons why employees leave (Ghosh et al., 2013; Horwitz et al., 2003; Samuel & Chipunza, 2009). Companies must therefore ensure that employees are informed about compensation practices and feel that compensation and benefits are fairly divided among the workers (Arnold, 2005). Overall, organizational justice is an important factor of employee retention (Gupta & Singh, 2018), and also plays into the demand for transparency by Generation Y (Glazer et al., 2019).

2.4.5 Organizational Prestige

Organizational prestige is the extent to which companies are perceived to be reputable and esteemed. As employer branding can strengthen a company’s reputation (Hadi & Ahmed, 2018) and consequently influences how the company is perceived, in this thesis it is equated with organizational prestige. Employer branding focuses on a company’s uniqueness (Hadi & Ahmed, 2018) and can also be seen as a long-term strategy supporting a favorable image of a firm among their current and potential employees (Tanwar & Prasad, 2016).

Employees pay attention to the reputation of their employer because they feel that the company they work for is in part a reflection of themselves (Earle, 2003). In addition to helping companies compete in the tight labor market, branding can decrease the costs of acquiring new employees (Hadi & Ahmed, 2018; Sokro, 2012) and increase current employees’ loyalty (Hadi & Ahmed, 2018; Sokro, 2012; Tanwar & Prasad, 2016). It also
helps employees to internalize company values and enhances employee relations. Effective branding thus aids in building competitive advantage and supports retention efforts (Sokro, 2012).

Organizational prestige, or in other words employer branding of a company can have a high significance in the decision-making process of Generation Y when choosing an employer. This is because these employees are always on the lookout for the next great opportunity, causing it to be important that their employer of choice meets their desires and expectations (Özçelik, 2015).

2.4.6 Retention
Each of the factors discussed above contribute to job satisfaction and commitment, which in turn play a principal role in retention. As Aruna and Anitha (2015) state, “Job satisfaction is the process of making employees fulfilled mentally and personally in their work” (p. 96), meaning the extent to which an individual enjoys their job (Hausknecht et al., 2009). As an employer, job satisfaction can be hard to fully evaluate due to its multifaceted nature. Job satisfaction is not only formed by feedback, guidance, and clear performance expectations (Glazer et al., 2019). Instead, it is composed of all the dimensions we have brought forth. Due to this, it is suggested that employers should use a variety of different practices to increase satisfaction, and retention as a result (Christensen Hughes & Rog 2008; Horwitz et al., 2003; Samuel & Chipunza, 2009; Van Dijk, 2008).

Organizational commitment is equally challenging to evaluate. It encompasses the extent to which a person identifies with the company, and the degree to which they participate within the organization (Hausknecht et al., 2009). Commitment is affected by the norms, practices, and work atmosphere of the firm (Kyndt et al., 2009). A sense of ownership should be generated among the employees in order to build commitment toward the organizational goals (Ertas, 2015). Both dissatisfaction and the absence of commitment can cause an employee to quit their job (Ghosh et al., 2013).

Generation Y is no exception to the rule that when dissatisfied with their jobs, employees tend to seek other opportunities (Aruna & Anitha, 2015; Kyndt et al., 2009). Now, more than ever, modern employees are looking for work that provides value and enrichment to
their lives (Aruna & Anitha, 2015). However, it should be noted that low job satisfaction does not automatically mean that employees will leave the company and vice versa. There are also individuals that want to stay but must leave due to reasons external to the company, and those who want to leave but feel like they must stay. Seeking to be aware of employees’ mindsets can help employers to predict turnover and workplace behaviors, and avoid dysfunctional outcomes caused by embedding reluctant stayers who misfit their jobs and lack motivation (Lee et al., 2017).

3. Methodology

This chapter presents the methodology, method, and sampling strategy chosen for conducting the research, and also covers the methodology of data analysis as well as research quality and ethical considerations.

3.1 Research Philosophy

The utmost aim of this study is to use the developed model to describe the retention tools and techniques of Finnish IT firms, and then utilize the findings by enhancing said model to create recommendations for best practices. For this goal to be achieved, we must first gain an understanding of the current practices within the industry. To form a complete picture of the tools and techniques and the logic behind them, data must be gathered from the employers, rather than relying on the employees’ personal perspectives. The first step of this process was determining the philosophical stance to be taken. Research philosophy bears significance to the entire research project as it has an impact on the researchers’ worldview. It is useful in clarifying and evaluating research designs and informs the reflexive role of researchers in research methods (Easterby-Smith, Thorpe & Jackson, 2015; Saunders, Lewis & Thornhill, 2016). In other words, the philosophical standing influences the way we go about answering the research question.

At the very core of the research process is ontology, which relates to the nature of reality and existence (Easterby-Smith et al., 2015; Saunders et al., 2016). Easterby-Smith et al. (2015) present realism, internal realism, relativism, and nominalism as four different ontological positions. As discussed in the introductory chapter, we are aware that the theme of retention has already been studied, but with the focus being on different
industries, cultures, and countries from various perspectives. Based on the state of current research, we have highlighted the need for current research in the IT industry with a North European perspective. This suggests that there is no single definitive answer as to what are the tools and techniques enabling success in retention, but rather that the answer alters depending on the context. As Easterby-Smith et al. (2015) state, there are a myriad of approaches, reflecting the view that there are many truths and that facts depend on the viewpoint of the observer. The truth therefore varies between one time and place and another (Easterby-Smith et al., 2015), implying that the ontological stance of this thesis is relativism. This position is further underlined by the fact that we have chosen to study the specific issue of retention from the management’s perspective, acknowledging that adopting a certain perspective changes the entire research process and its outcomes (Saunders et al., 2016). The consequence of relativism is that unlike with realism, we do not seek the absolute truth as it does not exist. As we collect and analyze data, we are aware that our findings are subjective and represent one truth out of many.

After settling on relativism, the next step was to determine the epistemological position taken. Epistemology studies the nature of knowledge and refers to the general set of assumptions of the most appropriate way of inquiring into the nature of the world (Easterby-Smith et al., 2015; Saunders et al., 2016). There are two contrasting views: positivism and social constructionism. Positivism’s key idea is that the social world exists externally, and it can be measured by objective methods, disregarding subjective inferences through intuition, sensation, and reflection. In juxtaposition, social constructionism is built on the idea that reality is not determined by objective and external factors, but by people and their experiences (Easterby-Smith et al., 2015).

As implied by the research question, in aiming to understand the retention tools and techniques used by IT companies in Finland, we are looking at social phenomena with subjective meanings. This means that we are aiming to increase our general understanding of the situation by focusing upon its details and the reality behind them (Easterby-Smith et al., 2015; Saunders et al., 2016). We acknowledge the existence of different realities and objective knowledge (Easterby-Smith et al., 2015), trying to build our knowledge through developing our own retention model. Further, the research question is such that we are unquestionably a part of the research process. It is not possible to acquire the necessary insight from independent observations, so we must interact with individuals in
order to gain a deeper understanding of their perspectives and thoughts, and to obtain as many details as possible in order to gather rich data. In light of these characteristics, social constructionism is the more suitable position for our purpose.

3.2 Research Purpose
Having settled on the philosophical standing of relativism and social constructionism, the next step was identifying what type of a purpose this research project fulfils. Saunders et al. (2016) state that the formulation of the research question will determine the research purpose, and present four distinct types of studies: exploratory, descriptive, explanatory, and evaluative. In short, exploratory studies are used to discover what is happening, gain insight, and to clarify the understanding of a research topic. Descriptive studies, on the other hand, are useful when there is already a clear understanding of the research topic, and the goal is to gain an accurate profile of it. Explanatory studies are applied when the researchers wish to clarify causal relationships between variables, and the aim of Evaluative studies is to determine how well something is working (Saunders et al., 2016).

It is also possible to conduct a study combining two or more purposes, either by having a research design that uses mixed methods, or by utilizing a single method in a way that facilitates more than one purpose (Saunders et al., 2016). We opted for the latter approach, with a combination of exploratory and descriptive purposes. This was determined to be the most suitable option for us, as the research question features two distinct aims.

The first is to describe the retention tools and techniques used by Finnish IT firms, with the empirical study being based on existing literature. The purpose of this part is therefore clearly descriptive. However, the aim of the research is taken further in the second part of the research question, which seeks to offer novel theoretical and practical contributions on the issue of retaining IT knowledge workers. For the goal to be achieved, it is important that there is flexibility to change direction and focus as a result of the empirical findings. Since a descriptive study does not allow for this, combining it with an exploratory study is the only suitable choice for fulfilling the dual purpose of the thesis.
3.3 Research Approach

After defining the philosophical position and purpose of the research project, it is important to understand that research can be conducted through two approaches: inductive or deductive. When adopting the deductive approach, the aim is theory testing, with researchers first developing a theory and a hypothesis, and then designing the research strategy to test their hypothesis. When using the inductive approach, the process is inverted, and the aim is theory building. In this case researches first collect data, and then construct a theory through analyzing it (Saunders et al., 2016).

However, as Moutinho and Hutcheson (2011) state, deductive and inductive approaches are not reciprocally exclusive. This is also the premise for our standing, as this research cannot be classified as belonging purely to one category or the other, rather residing somewhere in between. First, it is true that we followed a deductive approach by using existing theory to formulate the research question, and the research strategy was designed to answer it. This makes the study primarily deductive. However, we somewhat moved toward being more inductive by opening up the possibility for novel insights through semi-structured interviews, where numerous open questions are used. This can be seen in the topic guide for the interviews, which is located in the appendix. Through this inductive activity, we allowed for the possibility of expanding on our theory through collected data. This means that after gathering and analyzing the data, we investigated whether there was a need to modify the pre-developed model to fit the discovered reality. On top of the new addition to the model, the inductive element is further supported by utilizing the empirical findings to illustrate the role and relative significance of each category.

3.4 Research Design

As Easterby-Smith et al. (2015) state, the choice of research design needs to fit the underlying philosophical position. There are two concepts widely used to distinguish both data analysis procedures and data collection techniques in business and management research: qualitative and quantitative approaches. One way to differentiate these terms is based on whether the focus is on numeric or non-numeric data (Saunders et al., 2016). Their main difference is that while the goal of quantitative research is to test objective theories by examining the relationship among dependent and independent variables within a population, qualitative research seeks to understand the context, processes, or the significance people attach to actions (Easterby-Smith et al., 2015). Another important
difference is that quantitative research aims at statistical generalizability (conclusions beyond those that have been examined), whereas qualitative research aims at internal generalizability (ability to explain what has been researched in a given environment). For this study, a qualitative approach was adopted as we seek to achieve in-depth knowledge of retention tools and techniques in the specific context of the IT industry. In other words, we aim for internal generalization. Additionally, this approach is strongly supported by our philosophical standing as qualitative research acknowledges subjectivity (Easterby-Smith et al., 2015), the core premise of relativism and social constructionism.

It is important to note that the qualitative approach has its limitations, first of which is related to the restricted sample size due to the time and costs involved. Overall, data collection, analysis, and interpretation require a large amount of time and carefulness. Second, as the nature of qualitative data is subjective, and it is originated in a single context, concerns of validity and reliability arise in terms of replication and generalizability. These issues in relation to this thesis are addressed in the section about research quality. At the same time, this approach offers researches multiple benefits. Because the researcher is so closely involved, they are able to gain a deeper view into the matter and can identify subtleties and complexities that quantitative research might miss. This type of research can also form a strong basis for suggesting possible relationships and dynamic processes, and as a reflection of social reality qualitative analysis allows for ambiguities and contradictions in the data (Easterby-Smith et al., 2015). For our research, it was essential to be able to gain a deep, nuanced understanding about the retention tools and techniques in the IT industry through interactions and close involvement with the respondents.

3.5 Data Collection

After these decisions had been made, the most appropriate method for gathering data had to be identified. Multiple methods for conducting the research were considered, and their strengths and weaknesses for our specific purpose are addressed next. Two methods, focus groups and secondary data, were ruled out nearly right away. Finding a common time and place for a focus group of human resource (HR) managers would be a feat in itself, and since the topic can be considered as sensitive information, there is no guarantee that the managers would openly share their views and experiences with their competitors. Secondary data was also decided against as the available information on retention tools
and techniques is very limited, difficult to access, and it is not possible to delve deeper into the data and the thought process behind it through additional questions.

Next, we contemplated using the popular method of questionnaires. Open-ended questionnaires can be utilized for qualitative research, and they can gather data about the behaviour and opinions of a large amount of people especially when distributed online. No matter the medium, a large number of participants is required in order to have a body of data representative of the population (Easterby-Smith et al., 2015). This posed an issue in our research, as the number of potential informants is limited. More importantly, as the research question already implies, the aim is to gain a deeper insight into the current tools and techniques used in Finnish IT companies for retention, in order to provide suggestions for its enhancement. By using a questionnaire, we would have been limited in the amount and quality of data received as it is not possible to use further inquiries to focus on certain themes and elicit a more thorough answer. Due to these limitations, questionnaires were not chosen as the research method.

Finally, we considered conducting the research through interviews. Interviews assist the researcher in exploring an experience or topic in depth, and the aim of seeking a more thorough understanding remains the same no matter how interviews are conducted (Easterby-Smith et al., 2015). Interviews can be structured, semi-structured, or unstructured, depending on the research problem at hand (Easterby-Smith et al., 2015; Saunders et al., 2016). The specific technique chosen for this research was to conduct semi-structured interviews in person. While it would have been possible to interview the managers through email, phone or a video call, the personal interaction with the respondents suited our purposes the best. When meeting the interviewee face-to-face, it is much easier to build trust and rapport and to keep focus on the topic of the discussion, and to capture nuances such as emotions, verbal, and nonverbal cues like body language. Semi-structured interviews, featuring a topic guide, were chosen because there is a list of certain issues we wished to cover during the interviews, but at the same time we wanted to have the freedom to flexibly deviate from the structure as needed, pose follow-up questions, and to encourage the participants to reply with open-ended answers and share their thoughts and experiences. The usage of semi-structured interviews also allowed us to accommodate inductiveness and provide scope for including an exploratory purpose in addition to the otherwise descriptive study.
3.5.1 Sampling Strategy

Once the single method research design had been decided on, the next task was to craft a sampling strategy and choose between probability and non-probability sampling. In many cases within business research probability sampling is either not feasible as there is no sampling frame, or adequate to answer the research question (Saunders et al., 2016). These issues also applied to this research project, and thus the chosen sampling strategy is non-probabilistic, purposive, and theoretical, as per the used theory. Non-probability sampling is subjective, with the researcher choosing the sample based on predetermined criteria. To participate in this study, the following criteria had to be met:

First, the individual had to be currently employed by a business organization operating in the field of IT, and their responsibilities must include HR matters to a large extent. This criterion was included to make sure that we reached informants with a high degree of knowledge of the HR function and its practical applications within the company. Second, the companies themselves must have been founded in Finland, ensuring that the roots of the organizational cultures stem from a homogeneous cultural context. Third, the minimum size for the companies was set at 10 employees to make certain that some HR practices have been established. No other restriction on size or sub-field of business within IT was put in place, so that we could receive as comprehensive of an understanding of the population as possible through interviewing representatives from firms of different sizes and not be limited to only consulting companies, for example.

After determining the criteria, a total of thirty companies were contacted via email, inquiring about their interest to participate in an interview on the research topic. This number was chosen because both the number of IT companies fitting the criteria and the time for conducting the interviews were limited. Generally, there is a need to collect data until the additional collection and analysis of data are less likely to add new or pertinent information (Easterby-Smith et al., 2015). However, this is difficult to estimate in advance. Therefore, considering the limited timeframe and lack of guarantee of how many companies would be open to the request, we set a goal to conduct ten interviews. Taking between one and two hours each, this amount would be feasible in terms of time, and would also provide sufficiently deep insight into the research problem, with a sample size large enough to offer some generalizability.
In the end, we were able to conduct 10 in-person interviews at the company premises, and the interview guide used in each interview can be found as an appendix. The interviews were conducted in Finnish as it is the informants’ native language, making it easier to build trust between the interviewer and interviewee and ensure complex and thorough answers without the risk of miscommunication. The interviewees were open and gave rich answers to each question, and each interview lasted approximately 90 minutes. The data was then carefully translated into English for the analysis. As the majority of respondents requested to remain anonymous, all companies are kept completely anonymous.

The sample characteristics were satisfactory; there were informants from both consulting and product-oriented organizations, representing a variety of sizes in a balanced manner, and although it was not a predetermined criterion, all companies were financially healthy. Hence, there were no major differences between the initial plan and the outcome. Reflecting upon the sampling strategy, we could have aimed for a larger number of interviews, but at the time this was decided against as it was seen as important to ensure that enough time was left for thorough analysis and discussion of the findings.

3.6 Data Analysis Methodology

The collected data has to be analyzed and the meaning comprehended in order for it to be useful. As qualitative data is non-standardized and expressed through words, there is no single standardized procedure for analyzing it. However, generally the process has three parts: summarizing, categorizing, and (re-)structuring / ordering (Saunders et al., 2016). In summarizing data, large amounts of texts are transformed into fewer, rephrased words which include the main points from the interviews. In categorizing, categories or codes are used to group the data, and they emerge either from the collected data or a theoretical framework. Finally, during (re-)structuring / ordering, data is arranged into a meaningful order which makes it easier to be analyzed.

These steps also form the base for template analysis, a method that allows researchers to tailor it to fit their particular requirements. This flexibility in the analysis process was seen as particularly valuable for this research, as with semi-structured interviews certain themes are already known beforehand, but others cannot be predicted.
Since research philosophy is connected to the way data is analyzed, it is important to keep it in mind during this step. In this case there was no misconnection between the two, as template analysis can be used with different epistemological positions and is suited for both positivism and social constructionism. Further, template analysis combines both the inductive and deductive approach by enabling codes to be determined in advance, and through allowing changes or additions to be made as the data are collected and analyzed. Similarly, this enables the exploratory purpose to be fulfilled.

In practice, there is a list of categories or codes that constitute the themes revealed from the collected data (King, 2012; Saunders et al., 2016), which are organized in a hierarchical structure to represent the relationships between themes (King, 2012). In our case, the categories were mostly pre-determined based on our theoretical framework. However, we also remained open for new categories that emerged from the empirical material, and as data collection proceeded the template was revised as part of the qualitative analysis.

There are five ways for revision: inserting a new code into the hierarchy, deleting a code from the hierarchy, altering the scope of a code, unification of codes that were initially considered distinctive, and reclassifying a code into another category. Whenever a revision takes place, it is followed by a verification of this action and its implications to previous coding (King, 2012; Saunders et al., 2016). In our study, new codes were added to the hierarchy, and the scope of some existing codes were accordingly altered as a result. After these revisions were completed, the finalized template provided the basis for analyzing the empirical data. Organized under the codes, the collected data was then carefully analyzed so that key insights and patterns could be identified.

3.7 Research Quality

As Saunders et al. (2016) state, there are a number of issues related to quality that must be considered in qualitative research. These include reliability, forms of bias, validity and generalizability. To begin with, reliability is connected to the lack of standardization and whether other researches would find similar information. This cannot be fully solved as both the context of the research and the researchers’ active role always have an impact on the findings of the study (Easterby-Smith et al., 2015; Saunders et al., 2016). Even so, to minimize this issue, we have included all of the relevant information on how the study
was conducted in order to demonstrate how the conclusions were reached. Additionally, this thesis follows social constructionism, which has an inherent assumption on the existence of multiple truths. Due to this, it is implied that the concern about coding reliability is not relevant. However, matters such as the attempt to approach the theme from various perspectives, the researchers’ reflexivity, and the richness of the generated description are significant requirements (King, 2012). We have taken care to meet all of these requirements and minimize data quality issues by being aware of our interactive role in the research process, and through conducting interviews generating rich data in numerous IT companies.

Reliability is also connected to issues of bias (Saunders et al., 2016), as the nature of qualitative data is subjective (Easterby-Smith et al., 2015). To ensure that the research findings weren’t influenced by bias, two main preventive actions were taken. First, during the interviews we constantly repeated our understanding back to the participants, to confirm that we had understood them as intended. Second, the interview findings were transcribed and discussed in detail before the analysis, to avoid relying on memory alone and to ensure mutual understanding.

Validity is generally not seen as an issue in qualitative research due to the fact that the questions can be clarified, meanings of responses examined, and topics viewed from different angles (Saunders et al., 2016). Within this point, the major implication for this thesis is that there was a risk of misunderstanding or misinterpreting the data, as all of the interviews were translated. To avoid this problem, both time and thought was put into the translation process, and attention was paid to words and the meanings behind them. Through this, it was ensured that the nuances in the data were not lost. Finally, it is not feasible to make statistical generalizations about the entire population, as this qualitative research is based on a small number of companies within one country. However, internal generalization is achievable, as the thesis looks at retention tools and techniques in the environment of the IT industry.

3.8 Ethical Considerations
Research ethics are a significant aspect of developing a research study. Compared to quantitative research, a qualitative approach is likely to lead to a greater range of ethical concerns (Saunders et al., 2016). This is why the authors have carefully considered the
implications of their activities before collecting data. The ten key principles from Easterby-Smith et al. (2015) were kept in mind when developing the topic guide, conducting the interviews, and reporting the findings.

Translated in terms this thesis, the key principles are realized as follows. First, participants were informed of the research project and its nature, aims and scope, and how the data is used. This ensured that they were fully informed, and their informed consent could be attained. The interviewees were treated with utmost dignity and were assured that the data is confidential in that no one but the authors have access to the data before it has been anonymized so that no company or individual can be identified. Informants were also asked if they wish to remain anonymous and as a majority did, all participating companies are kept fully anonymous in order to prevent harm, and to protect their privacy.

Furthermore, the authors are honest and transparent in the communication about the research, and the final version of the thesis will be sent to the participating firms. This research does not receive any funding, and there are no affiliations or conflicts of interest. Finally, the research findings are reported truthfully and to their full extent and there is no misleading or false reporting. Through these actions, the authors protect the research participants and the integrity of the research community.

4. Empirical Findings

In this chapter the empirical data from the semi-structured interviews is presented and described. The collected data is sorted according to the developed model and topic guide.

4.1 Context Description

Companies included in the study represent both consulting and product organizations in the field of IT, with the companies being in different life stages and their sizes ranging anywhere between 15 and over 10,000 employees. On this scale, the different sizes are represented fairly equally, with most companies being small and medium sized. Since the purpose of thesis is to gain a comprehensive understanding of current retention tools and techniques to form industry best practices, no comparison is made between companies representing different life stages or sizes. The typical median age for employees is between 30 and 40 years, meaning that most employees fall into generation
Y. Additionally and perhaps most importantly, all of the companies employ knowledge workers specializing in IT. All have international operations, meaning that there are international employees, and many also had international talent working in Finland.

To ensure anonymity, the ten companies are differentiated by assigning each respective company a letter in alphabetical order, from A to J. Below, the main findings from the interviews are presented and structured around the model developed in the theory chapter. General findings pertaining to retention are presented first, after which the categories of Training and Development; Compensation and Benefits; Flexibility and Work-life Balance; Organizational Culture; and Organizational Prestige are covered. Finally, concluding remarks on retention tools and techniques are made, before moving on to the analysis.

4.2 Retention in General

To begin with, nearly all of the companies were acutely aware of the significant shortage of coders and other IT knowledge workers, especially when it comes to more senior positions or specialized competencies. Many brought up that the talent currently has many options, making it an employee’s market. Consequently, recruiting is a challenge and the difficulties are expected to continue in the future. Contributing to this is also the fact that on top of the IT firms, the same talent is sought after by other industries, such as banking and insurance. As one participant put it:

A: “When employees leave, there are factors that are pulling and pushing them away. Now, the pulling factors are very strong and have been increasing. Headhunters are extremely active, and even if an employee has no plans to leave, they may get a ridiculously good offer and leave.”

The participating companies had different approaches to overcome this issue, including innovative recruiting practices such as participation on social media platforms and physical marketing, cooperation with higher education institutes, and enabling remote work. It also came up frequently that recruiting has become global, as the talent gap cannot be filled by Finland alone.

Although exact views on retention somewhat differ from one firm to another, the matter had been given thought to in all of the companies and generally it was viewed as
important. Two of the companies mentioned the high costs associated with hiring a new employee, and the importance of supporting employees’ development was frequently brought up in these answers. However, multiple companies additionally wanted to highlight that turnover is also natural, it being unrealistic to think that talent would stay within one company for a prolonged period. These sentiments can be seen in the following quotes:

C: “We want the be the ultimate learning platform, which means that it is good to recognize that sometimes, in terms of the individual’s learning, the best option for them is to leave.”

D: “Retention is seen as highly important, turnover is poison. Of course, there is also the right kind of turnover, for example if an employee is no longer motivated then it is better if they look for more agreeable work within the company, or leave.”

There were no identifiable typical reasons for turnover across all firms, and one informant pointed out that:

F: “When people have left, there is the problem that what people tell you often aren’t the real reasons.”

Regardless, common reasons for turnover that the companies mentioned were for example the desire to become an entrepreneur, moving from consulting work to a product organization, career development, and personal reasons such as moving elsewhere. Two of the interviewees also wanted to mention that in general, salary is rarely the reason to leave.

4.3 Retention Tools and Techniques

4.3.1 Training and Development

All of the companies had a premeditated approach to the training and development of their in-house talent, and there were a variety of ways through which it is being carried out. The need for continuous development due to the ever-changing industry, for both individuals and companies, was brought up, and the benefits of training and development are illustrated in the following answers:
B: “Through development, employees can increase their intellectual capital, build their own employee brand, and add value to themselves.”

I: “The individual has the responsibility to maintain and develop their skills, but so does the company, and this also benefits the company.”

Two of the companies articulated that they are using a 70-20-10 approach, where 70% of learning happens on the job, 20% through reflection and feedback, and 10% through specific training. This falls in line with the rest of the companies who similarly have adopted a combination of learning on the job, feedback, and offering more formal training opportunities. Opportunities for development are typically provided both internally and through purchasing external guidance, and they cover soft skills on top of specific training. Overall, the importance of training and development was communicated clearly. Nearly all companies brought it up when discussing the most important factors for retention, with the informants attesting that interesting and meaningful work, as well as opportunities and support for development, aid retention efforts greatly. As one respondent put it:

C: “Retention is approached through commitment, and that is based on learning in the company.”

Many of the companies also mentioned that they sponsor their employees’ attendance to industry seminars and other events, and it is common that ideas for training and development come from employees themselves. It is also fairly usual for the knowledge workers to use their free time to develop themselves, for example by acquiring certificates or contributing to open source projects. Depending on the company's policy, employees may be financially compensated for this.

Related to the topic, one company in particular wanted to underline the importance of a thorough onboarding process, meaning the integration of a new employee into the organization and its culture, as a way of building commitment and a long-lasting relationship between the employee and employer. The topic of onboarding was also briefly mentioned by three other companies, two of which brought up having or working to create a handbook for new employees to support this process. In terms of career
development, there was high variance with only some companies having clearly defined career paths.

4.3.2 Compensation and Benefits

The general view on compensation and benefits was similar across all companies, in that the importance of a competitive, market-driven salary was recognized. Further, it was standard practice to monitor industry salary levels and adjust offered salary accordingly. However, most interviewees found it important to mention in connection to the topic that salary is rarely the main motivator, with one interviewee referring to it as a hygiene factor. Therefore, the overall sentiment was that while a good salary is offered, the companies are not competing through excessive salaries. When talking about the most influential factors to retention, many brought up that the salary must be competitive in order to attract and retain employees but is not the primary determinant. Connected to this point, the interviews also provided two examples where an applicant was offered higher salary by a competitor, but ultimately chose the informant company instead, due to their culture. Two companies also stated that the importance of salary is connected to employees’ life and career stages, with other things becoming more significant as they progress. The informants’ thoughts can be well summarized in:

G: “Salary has a fairly short-term motivating effect, but at the same time it can have a very demotivating effect if it is too low.”

In terms of benefits, there was more discrepancy in the companies’ approaches. First, due to the firms’ life stages, some of them were only beginning to develop their practices while others had many established benefits. Second, one participant pointed out that benefits are a specialty of the IT industry, whereas another wanted to make a point that while offering various benefits is nice, they are not the most important factor in terms of retention:

E: “The basics have to be in good shape; if people are complaining about the lack of energy drinks then things are pretty well.”

The diversity in the list of benefits offered by the participating companies is high. Individual benefits range from equipment, transportation, extensive health insurance, and communal breakfasts to ping pong tables, pinball machines, various company parties,
beer, and ice cream. Additionally, it is common to offer drinks, fruit and other snacks, and lunch, sports, and culture benefits. Two companies also mentioned that they offer options to key talent. It is common that the range of offered benefits is altered according to their usage rates and employee wishes.

4.3.3 Flexibility and Work-life Balance
Each company supported work-life balance by offering some degree of flexibility to their employees, although the extent varied significantly. The topic of flexibility was at times also brought up in relation to factors most supporting retention. One interviewee pointed out that flexibility is strongly a part of the industry, and indeed all firms had flexible working hours, ranging from flextime to employees having full control of their schedule, in the confinements of their project. Two of the participating companies expected talent to primarily work at the office save for occasional remote days. One of these companies mentioned that:

E: “This has been a deal-breaker for some candidates, but it is made clear during recruitment, so people who come to work here are aware of it.”

In the rest, employees are more or less free to decide where and when they work, although this liberty may be constrained by customer wishes. Some firms also offer opportunities for work or location rotation. It was also brought up by one respondent that:

J: “It seems to be very important for young people that there is flexibility, and that they do not have to come to the office.”

Many of the companies where employees are not required to work at the company premises also noted that despite this freedom, many employees still preferred to come to work at the office, at least for a part of the week. The companies viewed this as important in terms of exchanging information and supporting the social work environment.

4.3.4 Organizational Culture
The topic of culture invoked rich, in-depth answers from all participants, and on the matter of what affects retention the most, culture and its characteristics was the most frequent factor brought up by interviewees. It was seen as a major determinant, as illustrated by the following quotes:
G: “The first thing that makes people leave is the work community, or a wrong type of culture, so that it is unpleasant to go to work every day.”

H: “Our culture is different from other companies and we want to keep it that way, that’s how people are retained. We don’t invest in stopping people from leaving, instead we make sure that culture and other aspects are in order.”

Work Environment

Following the model, the first subtopic within organizational culture is work environment. The physical work environment was characterized by having open spaces. While some companies also have individual offices for certain people such as HR personnel or the CEO, they still have open working spaces as well, and others only have open rooms for teams, or spaces for different purposes which employees can use as they wish. In many companies, the design of the office and its spaces have been carefully considered. For example, there are spaces suitable for work requiring concentration, teamwork, and relaxation. The location of the company premises was also seen as an important factor by multiple respondents, and as one interviewee said:

H: “The design and location of the office were carefully considered, this is also a characteristic of the industry. People demand and expect that the facilities are in order.”

Social work environment was also seen as highly important, with two participants even stating that people who have left the respective firm in question have expressed that the hardest part was leaving their colleagues. Related to this, many interviewees brought up ways that the feeling of community is supported, such as through scheduled casual discussion sessions, company meetings, shared breakfast, going to lunch together, taking part as a group in sports events, after work activities, and different clubs and activities, including different sports, sauna, board games, and beer. Employees give ideas for these activities, and they take place both at and outside work. One participant also shared that:

B: “People have set up multiple hobby groups not supported by the company, just because they enjoy doing things together.”

In fact, most informants talked about positive interpersonal relationships between employees, who form friendships and spend time together even outside work. Three
companies also wanted to bring up that to them it is important that employees feel free to be themselves. Finally, in relation to work environment, all companies mentioned that they are using a mobile application, such as Slack or Whatsapp, for communication. These are utilized for both official and more casual conversations. This information was a new insight into the work environment, as the usage of applications was not included in the interview guide.

Leadership

The understanding of leadership was expanded from that of the model based on the data gathered through the interviews. The term also encompasses how the company is structured, in other words the working style within the company. All of the informants characterized their culture as being open and having low hierarchy. Common topics that arose during this part of the interview included open communication, working together and supporting one another, and having both freedom and responsibility. Managerial work was still seen as important, as one interviewee phrased it:

D: “Managerial work is very important; its role is to encourage people to grow and develop.”

Additionally, many mentioned that any employee has the possibility to approach even the CEO directly. Connected to work environment, multiple companies also wanted to point out that members of top management do not have their own offices, or rarely use them. Two respondents also underlined that mistakes are not seen negatively, but rather as learning opportunities.

Low hierarchy as well as the responsibility and trust given to employees can be seen for example in one firm, where employees do not have to get purchases approved but make their own decisions. This is supported by a simple framework for decision-making and discussing with coworkers. Two other companies have taken these concepts even further, as they identify as self-guiding organizations. This means that they do not have a traditional matrix organization with clearly defined roles, and the role of management is diminished. Instead, employees have both independence and accountability over their decisions and actions. This premise was described as follows:
Employee Involvement

When considering organizational culture, the interviews illuminated an additional factor to be considered, which was not discussed in the developed model. The interviewees spoke extensively of feedback culture and the extent to which employees are involved in decision-making. As an example of employee involvement, numerous firms had created or were currently building company values by closely involving employees in the process. Overall, each company indicated that they encouraged, welcomed, and valued feedback from the knowledge workers. A large amount of feedback is generally routinely given without being prompted through mobile applications and at the office, but it is often also actively gathered during meetings, and through other channels, to support the organization’s decision-making process. This approach could also be commonly seen in how the companies have incorporated employees’ views in forming their practices related to for example training and development, as well as the offered benefits. In relation to involving employees and welcoming feedback and ideas, respondents said:

C: “Decisions aren’t just presented to employees, instead they are discussed about, and employees can bring forth their opinions.”

E: “We have realized that if a manager or HR decides that some training would be good for everyone, the performance and motivation is lower.”

Although feedback was seen as very valuable across the board, some interviewees brought up the issue that dealing with large quantities of direct feedback can be taxing, since every idea will not or even cannot be implemented. On this topic, a respondent said that:

J: “Young people especially may feel that everything can be changed and negotiated, but that is not the reality.”
Organizational Justice

Organizational justice as a concept was not as clear as the other parts of culture. Most companies had thought about it in some regard, and it was commonly linked to salary matters and responsibility. When asked about the topic, one respondent replied:

J: “It is very important that people feel like it is realized.”

In terms of salary, the respondents had worked with ensuring that employees receive a similar salary for similar work, typically with some variance depending on personal competency. Relating to responsibility, two of the companies highlighted the fact that they want to have a positive impact on the society, with their employees also taking actively part in this goal through contributing to open source programs, for example. Another aspect brought forward at this point was openness, i.e. transparency, with two firms in particular enacting this by internally and externally sharing more information than is typical for companies. One of these companies has taken transparency to a level where they regularly publish quotes and won deals with sums included, meeting minutes of top management, and even the salaries of all employees, though keeping the individuals anonymous.

Related to the topic of organizational justice, as all of the companies operate internationally, they were also asked about how the discussed approaches are translated across different countries and employee groups. In many cases different offices follow the same principles, with local adjustments due to matters such as legislation. For example, it may be difficult to offer the same degree of flexibility or the exact same benefits. In other companies, the international offices are more independent and do not follow headquarter policies as such, as it is seen that the cultural context of the country also affects the firm’s operations. Many of the interviewees did also mention the existence of bonus systems for certain groups, but in general all employees receive the same treatment.

4.3.5 Organizational Prestige

Overall, the informants were the most uncertain about this out of all the topics discussed, and organizational prestige was rarely brought up in discussions concerning the main contributors to retention. The effect of employer branding was seen as more significant
in relation to recruiting, but nearly all the respondents found it to hold some meaning in terms of in-house talent as well. It was brought up that the company has to match the image or employer promise that they have given, to meet the employee’s expectations. In other words, the external and internal image must be in harmony. Additionally, three companies mentioned that the employer’s brand can give employees a sense of pride, and one person also pointed out that:

F: “People think about how the company's name will look on their CV in the future.”

4.4 Concluding Remarks
As mentioned before, the five categories discussed above have an effect on employees’ satisfaction and commitment, but the two are not additional categories as such. Therefore, the informants were not directly questioned on this aspect. Even so, during the interviews the respondents brought up numerous approaches on how satisfaction and commitment are monitored and measured. This is done both formally, such as through employee satisfaction questionnaires at varying frequencies and one-to-one discussions with managers, and in less formal ways through casual conversations taking place at the office, or by a mobile application. The results of surveys have often led to changes within the organizations, and one interviewee spoke of the benefits of using an employee engagement survey:

C: “This tool has allowed us to also analyze when employees, who are considering to leave, sever their psychological contract.”

Falling beyond the scope of this research, no questions were specifically directed at the topic of recruitment activities. Nevertheless, the interviews underlined that beyond the applicant’s skills, it is essential to ensure cultural fit during the recruitment process. Making sure that the person will match the company, by for example having characteristics such as being a team player, or capable of independent decision-making, has a positive effect on retention.

Regarding international employees, some companies found that culture has an impact on matters such as personal communication styles, while others stated that the cultural background makes no difference. From the employer’s perspective all employees ought
to be treated equally, and so for the purposes of this study no further categorization of the IT knowledge workers is made as it would not be meaningful.

To sum up with, the overall sentiment regarding different factors affecting retention was that the basics must be in order. To the interviewees, this meant offering a market-driven salary, and more importantly, offering opportunities for development and facilitating a good organizational culture. As one respondent said:

D: “What is most important for retention is the culture, and also that people get to develop themselves and learn.”

This point of view was further underlined as two interviewees recalled cases where a firm had a wide range of benefits, but due to fundamental issues in organizational culture, the turnover rate of IT knowledge workers jumped up. Looking into the future of retention, one interviewee mused:

J: “Younger generations want freedom, responsibility, and flexibility rather than traditional leading mechanisms. Their time is over, and things simply no longer work that way. If a company isn’t ready to change, employees will vote with their feet.”

5. Analysis

The analysis chapter first presents insights inferred from the empirical data by using template analysis, and then the revisited model for retention.

5.1 Importance of Retention

The interviews strongly underlined the reality of companies facing a prolonged shortage of IT knowledge workers. This is a part of the global problem spanning across different industries, dubbed as the War for Talent (Beechler & Woodward, 2009). It is clear that recruiting is challenging, and even if companies have been successful in their recruiting endeavors, the HR personnel are intimately aware of the required effort. This immense misalignment between supply and demand for talent has resulted in an employee’s market, with firms deploying innovative recruitment approaches and competing against one another for top talent. Adding to the issue is the fact that the same talent is
increasingly sought after by firms operating in other sectors (World Economic Forum, 2016). Recruiting in the field of IT is commonly international or even global, and while this means that companies have a larger talent pool to source from, it also translates into talent having more options.

As noted in the theory section, the factor titled “Lack of alternatives”, from Hausknecht et al. (2009), was excluded from the model due to the fact that it is not within the employer’s span of control. According to Hausknecht et al. (2009), employees are more likely to stay in their jobs when they are satisfied and believe there to be few alternative jobs outside the organization. Clearly, there is no shortage of options for IT knowledge workers, as it is not uncommon for employees to frequently receive offers from headhunters, even when they have no intention to leave their current place of employment. To combat this, employers must strive even harder to ensure their employees’ satisfaction.

Coupled with the substantial costs of both recruitment and turnover, these characteristics of the current situation unequivocally show that Finnish IT firms ought to pay close attention to the matter of retention. Here it is important to once more mention that, as the interviewed companies recognize, in the modern work environment non-linear career paths are a given and career development rarely takes place in only one company. As differentiated in the theory chapter, in some cases turnover can be perfectly natural and even benefit the company (Ghosh et al., 2013). In this thesis, however, the focus is on how firms can prevent dysfunctional, harmful turnover where key talent is lost. These practices are covered next, grouped into the different categories of the model.

5.2 Retention Tools and Techniques

5.2.1 Training and Development

The role of training and development starts from the new employee’s very first day, with onboarding playing an important part in integrating the newcomer into company tasks and culture (Hinkin & Tracey, 2010). From this point on, training and development should be a continuous process, with the acquired competencies benefitting both the employer and talent. For the employee, developing their knowledge and skills allows them to build up their personal market value. This is meaningful due to generation Y’s desire for constant professional development, their strive for progress in their careers.
(Aruna & Anitha, 2015), and the modern, fragmented career paths. On the other hand, the employer reaps benefits from having highly skilled workers with up-to-date skills, ensuring that the firm remains competitive (Kyndt et al., 2009).

Overall, continuous learning has significant importance in the IT industry, as the pace of technology is fast and neither individuals or organizations can afford to fall behind. A great deal of learning happens on the job for IT knowledge workers, but in terms of specific training and development activities, it is important that in-house talent has a say in how it is realized as they have a keen sense of what type of activities would be advantageous. The role of the firm is largely to support the employees in attaining these opportunities and to coordinate their actualization. This can happen through either external or internal training, or a combination of both.

5.2.2 Compensation and Benefits

In 1959, in the book The Motivation to Work, Frederick Herzberg introduced the two-factor theory, which has become a staple of management theory, and continues to hold water throughout the decades. According to this theory, there are two types of factors influencing employees’ motivation: motivators that sustain effort, and hygiene factors which demotivate when inappropriate. A key concept of the study is that money is a hygiene factor, meaning that while insufficient financial reward can be demotivating, it does not have a motivating effect beyond a limited threshold (Bassett-Jones & Lloyd, 2005).

This perspective very much falls in line with our findings, which have indicated that a salary or a raise has only a short-term motivating effect. Even so, it should be kept in mind that compensation is important to the effect that it must reflect the market conditions in order to attract and retain IT knowledge workers. Additionally, as pointed out in the theoretical section, it is important that employees perceive the salary to be fair (Arnold, 2005). Companies must monitor the industry’s salary levels on an ongoing basis and adjust their talents’ salaries as necessary in order to avoid the demotivational effect of a perceived inadequate compensation (Ghosh et al., 2013).

Alongside competitive salaries, benefits are a core characteristic of the industry. The number and nature of offered benefits have a great deal to do with the individual
company, and how they want to profile themselves and their organizational culture. Seniority-related benefits did not come up during the interviews. This is likely due to their diminished role in the IT industry, where typically a variety of benefits is offered even to most junior talent. Offering benefits can be a simple way to enhance the employee experience, especially when they are flexible in the sense that individuals can choose benefits which meet their needs and interests (Agarwal & Ferratt, 2002; Arnold, 2005). However, salary and benefits alone should not be relied on too heavily. Though a competitive salary is essential, as we have covered, generation Y and IT knowledge workers are motivated by more than money and benefits alone (Horwitz et al., 2003; Lee et al. 2017). This means that their long-term importance in terms of satisfaction and commitment falls short in comparison to some of the other factors.

5.2.3 Flexibility and Work-life Balance

As with benefits, the degree and forms of flexibility offered to employees varies depending on the company and their culture. Generation Y highly appreciates having the possibility to decide where and when they work (Eversole et al., 2012; Hinkin & Tracey, 2010), and on top of this, the tasks of IT knowledge workers are often not tied to a specific place or time. Allowing for flexibility is therefore a simple way to increase employees’ satisfaction.

A less flexible, more traditional approach where talent mainly works at the office can work as well, but here it is essential that the matter is covered in the recruitment process to avoid false expectations. If a company has a very high degree of flexibility, it is important to ensure that social cohesion between employees does not fade out. This can be done, for example, by offering a voluntary communal breakfast and information sharing session at the office once a week.

Within this point, it should be noted that Finland has legislation supporting work-life balance, such as lengthy family leaves lasting up to nine months (Kela, 2017) and annual leave typically being 30 work days long (Finlex, 2016). These are seen as a given, and so in another cultural context the discussion on flexibility and work-life balance might look very different.
5.2.4 Organizational Culture

Work Environment

In terms of the physical work environment, having an open office layout is common. This is seen as allowing for more interpersonal contact and creating the feeling of a flatter organization, but firms should also ensure that employees also have access to quiet spaces for work requiring phone calls or concentration, for example. In the IT industry, both the location and the design of office spaces are often carefully thought out, as they too can make a difference in terms of retention (Earle, 2003).

Social work environment is immensely important, as it has a major impact on satisfaction, especially for generation Y (Aruna & Anitha, 2015), and ties the employees to the company through the work community. As the section on work environment under 4.3.4 illustrates, it can be difficult for an employee to part from their colleagues when considering leaving. While employers cannot affect personal chemistry, they can ensure that employees feel comfortable to express themselves in the workplace and play a substantial role in supporting the feeling of community between employees. This means opportunities for employees to spend time together, socialize, and both build and deepen their interpersonal relationships.

Numerous ways for doing this have been listed in the empirical findings, and naturally firms should identify those that best serve them and their employees. It should be pointed out that some of the activities allocated there, such as different clubs, shared breakfast, company teams for races and the like, are also non-financial benefits. However, as opposed to other, especially monetary benefits, the main purpose of these practices is to build up satisfaction and commitment by strengthening the social cohesion and relationships between employees.

The work environment actually goes beyond physical and social, as communication applications such as Slack combine the office and the socialization into a virtual work environment. Utilizing this dimension is especially important in companies where individuals are not often working together at the same physical location, to facilitate the development of interpersonal relationships.
Leadership

The studied sample includes firms closer to traditional organizational structures, self-guiding organizations, and those falling somewhere in between. Our findings support the theoretical understanding of how certain leadership styles can support retention, meaning that firms should develop their structures toward low hierarchy and autonomy, matching the expectations of generation Y’s knowledge workers (Aruna & Anitha, 2015; Earle, 2003; Glazer et al., 2019).

Since leadership has a major role in employees’ decision to stay or leave (Frank & Taylor, 2004), it is important that managers are approachable, with the emphasis on coaching rather than giving orders. It also makes a difference whether leaders spend most of their time at a corner office, or among the employees. Further, there should be a culture of open communication, and a feeling that everyone is working together toward a common goal, supporting one another. Mistakes should be seen as learning opportunities, and most importantly, employees should be given a great deal of both independence and responsibility. This also includes flexibility as described above, and one example of translating this into practice would be providing a guiding framework for individual decision-making. These approaches could be summed up in two words: respect and trust.

Employee Involvement

This dimension emerged from the empirical data and bears high importance. The term “involvement” here refers to the employers’ decisions and actions regarding how deeply employees are involved with the decision-making process within the organization, as well as the prevailing feedback culture. This dimension is therefore linked to leadership, and has increasing significance as generation Y appreciates being involved (Aruna & Anitha, 2015; Earle, 2003). Instead of simply presenting decisions, talent should have the opportunity to take part in matters that affect them and the company, and the employer should maintain ongoing communication. Examples of this would be employees having a say in training and development activities or cementing organizational culture through participative creation of company values.

Welcoming feedback in informal situations, at the office or through an application, is also useful. Through a culture of open communication and feedback, the employer gets much
richer and more accurate information on the pulse of the employee body, as opposed to relying solely on surveys or development discussions. This detailed and timely information, in turn, is valuable in addressing issues that may grow and eventually even lead to turnover. Of course, a larger quantity of feedback also requires that managers and the HR department have the resources to respond, as otherwise employees may feel that they are not heard.

**Organizational Justice**

As a concept, organizational justice may not be as clear as the rest of the cultural dimensions, especially due to the country context as Finland is characterized by equality and transparency (InfoFinland, 2018; "Finland holds at third in least corrupt countries ranking", 2019). In other words, concepts related to organizational justice are often assumed to be in order and consequently not given much thought. As with flexibility and work-life balance, the same topic can be seen drastically differently elsewhere. When a firm is operating in multiple countries with different legislative practices and cultures, they must find balance between overarching company practices and adjusting other parts to fit the specific context.

The most important thing is that employees feel that they are treated fairly and equally, and organizational justice is realized. Often this is linked to matters salary, as mentioned in the theory chapter. It is important for employers to monitor the salaries within the organization, to ensure that differences are justified, and no one is underpaid, especially since in the IT industry talent receives many offers with high salaries. Building on the fact that generation Y places high value on transparency, companies may also consider taking things a step further by sharing information that has previously been seen as sensitive. These actions also contribute to a culture of openness and trust.

As the topic was also linked to responsibility by some interviewees, it is worthwhile to note that it has been found that allowing employees to participate in corporate social initiatives has a positive effect on retention (Bode, Singh & Rogan, 2015). The nature of these initiatives, such as open source projects, pro bono work, and mentoring, how much the company financially contributes to them, and the extent of following a sustainability mindset in conducting business depend on the respective company.
5.2.5 Organizational Prestige

Organizational prestige, or employer branding, is more commonly linked to recruitment activities, as it has a notable effect on talent attraction (Hadi & Ahmed, 2018; Sokro, 2012). Because of this very reason, however, it follows that the importance of employer branding does not disappear once an applicant has become an employee. Companies must meet their expectations, fulfill the given employer promise, and match the external image.

Many companies in the industry work closely with their employer image, but the most important work is done in ensuring employee satisfaction in day-to-day operations. A good employee brand can instill a sense of pride in the worker, and as generation Y rarely stays within one company for their entire careers, they are also concerned with how their work experience in said firm will be viewed (Earle, 2003).

5.3 Concluding Remarks

Each of the categories above contribute in part to the satisfaction and commitment of employees, and therefore to retention. As pointed out in the theoretical section, satisfaction and commitment are difficult for employers to measure due to their complex nature. However, most thorough insight can be achieved through the combination of formal and organic approaches. Formal measures, such as surveys and development discussions should be done at regular intervals, and complemented by creating a culture of open communication and employee involvement. This ensures that the company also gets more nuanced, unsolicited feedback in casual discussions.

While talent attraction as a theme is excluded from this study due to its limited scope, the importance of a thorough recruitment process in terms of retention cannot be dismissed. In the process, the expectations of both parties should be assessed and on top of the applicant’s skills particular attention needs to be paid to their cultural fit. Our model focuses on keeping in-house talent, covering the tools and techniques for retention after the completion of recruitment process. All of the five categories are relevant in reducing dysfunctional turnover, and in this highly competitive operating context companies cannot afford to place their bets on only one or few of them.

Although managers should not lose sight of the big picture, at the same time they need to evaluate which factors are the most meaningful to their company and employees, which
may play a smaller part, and how each category should be translated into practice. Despite all categories holding significance, the interviews have clarified that they can be sorted into three tiers of importance. Training and Development and Organizational Culture are located in the first tier, with Compensation and Benefits and Flexibility and Work-life Balance in the second, and Organizational Prestige in the third.

To start with, Training and Development can be found in the first, most important tier as modern knowledge workers place high value on personal development. As discussed both under sections 4.3.1 and 4.4, the interviewed companies strongly communicated that this category is a primary determinant of retention. Sharing the spotlight at the top is Organizational Culture, which has proven to be of equal importance. Across the board, as heavily indicated both in sections 4.3.4 and 4.4., the informants were firmly of the opinion that without a well-functioning organizational culture, success in retention is in jeopardy. Both of these categories were discussed throughout the interviews and were most commonly brought up when discussing most important factors for retention. When these two categories work well, it is much easier to retain knowledge workers.

Compensation and Benefits is placed in the second tier. While often brought up in discussions related to critical retention factors, the category’s influence is limited. As mentioned in the section 4.3.2, salary must be at the right level, but beyond that its importance pales in comparison to the two categories above. The second tier also includes Flexibility and Work-life Balance, as it also came up as an integral factor at times. However, it is not placed in the first tier since retention can be achieved through different forms and degrees of flexibility, examples of which are shown in section 4.3.3.

Finally, Organizational Prestige belongs to the third tier as it was rarely brought up when discussing most important retention factors. Overall, this category was not as actively recognized to be as crucial as the other four, though as mentioned in section 4.3.5, it still offers a contribution to retention efforts. On the basis of these insights into the five categories relative significance, the model for IT knowledge worker retention was revised.
5.4 Model Development

Analyzing the data has allowed us to develop our contribution to theory further, by reimagining the model introduced in chapter 2. The new model can be seen in Figure 4.

Figure 4  Revised IT knowledge worker retention model

Contrary to the preliminary version, this model illustrates the roles of the different factors, building on an understanding that emerged from the empirical study. As the figure shows, the model consists of five pillars and a beam. The numbered pillars refer to the five different categories, listed on the right. This model illustrates how they all play a part, working together to support the beam titled retention.

The model also helps to visualize how the less pillars an organization has built up, the less steady the beam resting on them is. While the structure can still hold if one or a couple pillars are missing, it is notably less sturdy and becomes much more vulnerable to internal turmoil or external pressures such as headhunters. If too many of the pillars are missing, the structure becomes unbalanced and may even collapse. In practice, this would mean that retention is impacted negatively, and the risk of turnover is high.

Finally, it showcases the relative importance of each category as informed by our findings. This is done through the placement and coloring of each pillar, corresponding to the three tiers of relative significance. At the ends with the darkest shading are Training and Development and Organizational Culture. As mentioned above, these two have been identified as most meaningful, and therefore the structure becomes especially precarious if one, or both, are lacking. Then, one step closer to the center, slightly lighter, are Compensation and Benefits as well as Flexibility and Work-life Balance. It is important to stress that these two are also significant, but the degree of flexibility is intimately tied with culture, as are offered benefits, and less of either does not necessarily have a negative
impact. Additionally, as has been mentioned, salary must be market-driven but is not a long-term motivator. Last, the lightest pillar of Organizational Prestige is located in the middle. While still important, it bears the least weight out of the five, and the structure remains fairly steady even if the employer image is not continuously worked on.

As opposed to a detailed road map to retention, this model should primarily be viewed as a skeleton to be filled in by the practitioner. The different categories and their roles have been developed based on a theoretical framework and empirical findings in one context. Thereby, professionals are encouraged to use the above model as a starting point, editing it to best match their specific organization by reassessing the importance of each category and choosing practical tools and techniques that best work for them.

6. Conclusion

In this section, the conclusions of the research project are discussed, and an answer is provided to the research question. Then, final insights on the research topic are presented, alongside theoretical and practical contributions, as well as ideas for future research.

6.1 Conclusions

To answer the research question of “What are the tools and techniques Finnish IT companies are using for the retention of knowledge workers, and how can they enhance it?”, it must be divided into two parts. First, we have identified a plethora of various tools and techniques that Finnish IT companies are currently using for talent retention, both deliberately and unintentionally. These tools and techniques have been described in detail in the empirical findings chapter, and they can be divided into five main categories, in accordance to our model. The categories are Training and Development; Compensation and Benefits, Flexibility and Work-life Balance, Organizational Culture with the subcategories of Work Environment, Leadership, Employee Involvement, and Organizational Justice; and Organizational Prestige. The categories have been predetermined with the help of relevant theory, with Employee Involvement offering a novel contribution to the framework as it has arisen from the collected data.
The second part of the question relates to how these companies could enhance their retention of talent. Through studying the existing literature and conducting an empirical study, we have created a retention model for IT knowledge workers. In terms of how the model and its five categories can be utilized to enhance it, the following conclusions can be made:

We have determined that the categories are divided into three tiers based on their importance. The first tier includes Training and Development, and Organizational Culture. In connection to these categories, recruitment should be considered as the starting point for retention. This is followed by an onboarding process, ideally starting an ongoing cycle of training and development activities. Ideas for training and development should be sourced from knowledge workers, as they are experts in their field. The other primary determinant of successful retention efforts, organizational culture, must be given careful thought as it serves as a basis for all activities. Companies would do well in ensuring open communication, low hierarchy, and fairness, as well as involving employees and granting them both independence and responsibility.

Compensation and Benefits as well as Flexibility and Work-life Balance are located on the second tier. In short, offering flexibility, a market-driven compensation, and adaptable benefits are also important building blocks for retention in the IT industry. The third tier includes Organizational Prestige, in terms of which ensuring that the employee experience matches the external company image is important. Despite some categories bearing more weight than others, the best results are achieved when all five of them are utilized in unison.

6.2 Discussion

The subject of retention is clearly important for Finnish IT firms, and its role seems only to grow in the future as the already high demand for IT knowledge workers continues to increase across different industries both domestically, and internationally. As mentioned, when attracting talent is difficult, retention is the most productive policy. Even the best of recruitment practices will be in vain, if retention strategies are not firmly integrated into the firm’s operations. It is therefore a wise investment to assess retention within the company systematically from a strategic management perspective by integrating it into the long-term business strategy. This is done by developing a retention strategy on the
operational management level, comprised of different tools and techniques that have been identified as most suitable and meaningful to the company.

6.2.1 Theoretical Implications
This thesis offers a theoretical contribution that culminates in the developed model, presented in the analysis chapter. Unlike previous literature on the topic of retention, our study is built around the employers’ perspective in the IT industry, and the knowledge workers who continue to be in short supply. Additionally, the focus is on generation Y, as they now make up most of the workforce in the industry. In other words, current, industry-specific information has been generated and used to complement the existing body of research. Further, a North-European perspective on retention has been added. The model is therefore a product of both previous theory, and additional, novel findings stemming from the empirical findings. In particular, the subcategory titled Employee Involvement was added, and the five categories were allocated relative weighting as a result of analyzing the collected data.

6.2.2 Practical Implications
In terms of practical use, the created model can be used by IT companies, in Finland and in other countries, as well as by professionals involved with retention of IT knowledge workers in other industries. As stated in the beginning of this thesis, there is no “one size fits all” model for retention, and ours does not claim to be one either. This model, too, has been created within a specific country and industry context. This can mean that the categories’ importance may change depending on the location or type of business, for example. However, we have aimed to mitigate this issue by keeping the model simplistic enough for the framework to be applicable in various contexts.

Further, due to the importance of context, it would not be worthwhile to put forth a detailed to-do list promising reduced turnover. Instead, we offer a simplistic, comprehensive model for the retention of IT knowledge workers. It offers an overall framework and is meant to be tailored so that the specifics, meaning the practical tools and techniques, fit the company in question. Examples and most important aspects of each category have been covered in the empirical findings and analysis section, and these may be used as a source of inspiration.
The model helps to kickstart the process of identifying the most suitable tools and techniques for the company in question and ensures that all five categories are considered. Beyond that, it gives freedom for the practitioner to translate the ideas into practice, ideally by involving employees in the process rather than implementing it directly, to ensure that the chosen tools and techniques are truly purposeful. As pointed out before, legislation and culture may differ within a single organization due to international operations, and so the exact same approach may not be the best course of action, or even possible, in every office. This complexity of adapting practices while still ensuring fair treatment also requires careful consideration.

We recommend professionals to give thought to all presented categories and their weightings. All of them have been identified as important retention factors for IT knowledge workers, especially for those belonging to generation Y. When talent is competed for, companies need to be able to adapt to the needs and desires of their employees or risk losing them. However, we also encourage practitioners to modify the model based on their intimate knowledge of their industry, organization, and employees. These insights will look dissimilar in practice in different firms, and the goal of retention can be reached in numerous ways.

6.2.3 Future Research

Looking into future research, there are multiple directions to take. The retention model could be lifted from this specific context and applied in another industry or country, to see whether those surroundings would result in similar findings or if meaningful differences arise. It would also be of interest to look into differences in retention practices between companies that are of different sizes. A number of studies could be also created by focusing on any of the categories and researching their relationship with retention in detail. Even more value could be created by utilizing the model in a research project directed at knowledge workers, to compare the employees’ point of view to that of the employers. To achieve this, we see two possible directions to take. Either the model would need to be adapted to account for the additional factors that play into employees’ decision to stay or leave, but which are beyond the employer’s control, such as nonwork influences. Conversely, the focus could remain on what employers could do in order to better retain their in-house talent.
References


Appendix

Appendix 1 - Interview Guide

1. Introduction
   • Anonymous or not
   • Recorded or not
   • Purpose of study
   • Who has access to this information

2. Background
   • Personal background (how they entered the company, their current role)
   • Basic company info (operations, main products; number of employees; any female /international employees?; what kind of employees e.g. mostly IT / sales?; share of knowledge workers? what kind of knowledge work is being done?)
   • Basic info on the HR function (importance, HR strategy?)
   • How is the current IT labor market situation viewed?

3. Retention
   • Big priority or not so much, has it been thought about?
   • How is retention approached? A comprehensive plan / model used? (overall retention strategy)
   • Tools and techniques?
     • Training and development
     • Compensation and benefits
     • Flexibility and work-life balance
     • Organizational culture
     • Organizational prestige
   • What factors are seen as most important (priorities)?
   • Plans to develop retention in the future?

4. Industry
   • How do they feel that they fare in comparison (better, worse or same and why?)
   • If awareness: Would they like to / are they planning to change something to do better?

5. Context
   • Differentiated or company-wide practices? (Same practices for all types of workers (knowledge workers and not)? Same practices in each country?)
   • Feelings on whether the practices have been received differently between types of workers / cultures / genders?

Anything to add?