



HR Industry and Labour Market Transformation in Finland

Using Weak Signals to Improve Strategic Resilience

Lappeenranta–Lahti University of Technology LUT

International Business and Entrepreneurship

2023

Antti Johansson

Examiners: Professor Henri Hakala

Researcher Gregory OShea

ABSTRACT

Lappeenranta–Lahti University of Technology LUT

LUT School of Business and Management

Business Administration

Antti Johansson

HR Industry and Labour Market Transformation in Finland: Using Weak Signals to Improve Strategic Resilience

Master's thesis

2023

87 pages, 10 figures and 11 tables

Examiners: Professor Henri Hakala and Researcher Gregory OShea

Keywords: Labour market transformation, weak signals, technological development, Generation Z, HR-companies, strategy development.

In this master's thesis, labour market phenomena related to job seekers, temporary employees and customers of HR companies are examined from the perspective of HR company employees. The thesis aims to identify relevant changes in the behaviour of applicants and employees, and the effects of the changes on the operations of the employer and the HR company.

The research was carried out as a qualitative case study, where the data was collected through semi-structured interviews with experts from the case company. The collected data was analyzed with a thematic analysis, after which the study used the theory of weak signals to assess the degree of development of trends.

Four main themes were found in the interviews: tools of competition, the impact of technology, generation Z and polarization of work. Congruent change phenomena were identified from the themes, the level of development of which was evaluated on a scale of weak signal, strong signal or trend. The results of the study show that the behaviour of employees and applicants has changed significantly in recent years. Employers are required to adapt in order to attract and retain the workforce. In addition, factors that are important for applicants and customers in the service offering of HR companies are changing.

TIIVISTELMÄ

Lappeenrannan–Lahden teknillinen yliopisto LUT

LUT-kauppakorkeakoulu

Kauppätieteet

Antti Johansson

HR-ala ja työmarkkinoiden murros Suomessa: Strategisen resilienssin parantaminen heikkojen signaalien avulla

Kauppätieteiden pro gradu -tutkielma

2023

87 sivua, 10 kuvaa ja 11 taulukkoa

Tarkastaja: Professori Henri Hakala ja tutkija Gregory OShea

Avainsanat: Työmarkkinoiden murros, heikot signaalit, teknologinen kehitys, Z-sukupolvi, henkilöstöyritykset, strategian kehitys

Tässä pro-gradu tutkielmassa tarkastellaan työmarkkinoilla tapahtuvia työnhakijoihin, työntekijöihin sekä HR-yritysten asiakkaisiin liittyviä ilmiöitä HR-yrityksen työntekijöiden näkökulmasta. Tutkielmassa pyritään tunnistamaan relevantteja muutoksia hakijoiden ja työntekijöiden käyttäytymisessä, sekä muutosten vaikutuksia työnantajan sekä henkilöstöyrityksen toimintaan.

Tutkimus toteutettiin laadullisena tapaustutkimuksena, jonka data kerättiin puolistrukturoiduilla haastatteluilla asiantuntijoilta tapausyrityksestä. Kerätty data analysoitiin temaattisella analyysillä, minkä jälkeen tutkimuksessa hyödynnettiin heikkojen signaalien teoriaa trendien kehitysasteen arvioinnissa.

Haastatteluissa löydettiin neljä pääteemaa: kilpailukeinot, teknologian vaikutukset, Z-sukupolvi sekä työn polarisaatio. Teemoista tunnistettiin yhteneväiset muutosilmiöt, joiden kehitystaso arvioitiin asteikolla heikko signaali, vahva signaali tai trendi. Tutkimuksen tulokset osoittavat, että työntekijöiden ja hakijoiden käyttäytyminen on muuttunut merkittävästi viimeisten vuosien aikana. Työnantajilta vaaditaan muuntautumiskykyä työvoiman houkuttelemiseksi ja säilyttämiseksi. Lisäksi henkilöstöpalveluyritysten palvelutarjonnassa asiakas- ja hakijanäkökulmasta merkittävät tekijät ovat muutoksessa.

ACKNOWLEDGEMENTS

This research was carried out between March 2023 and June 2023 for Adecco Finland by Antti Johansson. I want to thank Adecco Finland, the interviewees and the country head for their support in this study.

Thanks also to my family and friends, especially my better half, for their help and support during the research project.

Table of contents

Abstract

Acknowledgements

1	Introduction	7
1.1	Previous research	9
1.2	Objectives of the research	10
1.3	Structure of the research	11
2	Theoretical framework	13
2.1	Strategy and strategic issues	14
2.2	Strategic resilience	16
2.3	Weak signals	16
2.4	Labour market transformation	17
2.5	Megatrends.....	21
2.5.1	Behavioral economy	22
2.5.2	Demographic change	22
2.5.3	Technological development	23
2.6	Summary	24
3	Research methods	25
3.1	Data collection	28
3.1.1	HR Consulting Industry	28
3.1.2	Research data	29
3.2	Data analysis: identifying weak signals	31
3.3	Trustworthiness of this research	36
4	Findings and analysis	39
4.1	Tools of competition	39
4.1.1	Customers	40
4.1.2	Employees.....	41
4.2	Impact of technology	44
4.2.1	Artificial intelligence	44

4.2.2	Platform Economy	45
4.2.3	Digital technologies	46
4.2.4	Labour shortage	47
4.3	Gen-Z	50
4.3.1	Accelerating labour market	51
4.3.2	Decreasing age of work-life entrants	52
4.3.3	Issues.....	52
4.3.4	Underlying causes of issues	55
4.4	Work polarization	55
4.4.1	Unattractive jobs	55
4.4.2	Attractive jobs	56
4.4.3	Inheritance of work	57
4.5	Consolidated findings	57
5	Discussion.....	60
6	Conclusions	69
6.1	Theoretical implications	73
6.2	Practical implications.....	74
6.3	Limitations for the research	74
6.4	Future research.....	75
	References.....	77

1 Introduction

Despite the growing popularity of artificial intelligence, automation and robotization, the need for human employees is likely to continue in the future. However, the labour market is under transformation, partly due to technological development and demographic change. At the same time, the labour shortage and changing skill needs increase the importance of attracting and engaging employees. This highlights the need for employers to understand the changing needs of the workforce, and how it affects their operations. This paper seeks to provide insights into the emerging issues regarding the topic.

Many companies do not have the resources or the knowledge to recruit employees themselves, in uncertain fields permanent hiring of employees is not possible, and sometimes changing needs towards the workforce create a need for retraining. In these situations, companies can rely on the services of HR companies. HR companies are professionals in providing employees to other companies in need, and they employ millions of people around the world every year. The services of HR consulting companies vary from consulting, temporary staffing, permanent placement, career transition and staff training in various industries (The Adecco Group 2022, 121-122). Consequently, they must understand the changing needs of both employees and employers. The labour market is undergoing a major transformation due to the emergence of Generation Z, polarization of work and technological development. This emphasizes the need to look at emerging phenomena in the labour market, as well as strategic ways to prepare for them.

The business of HR companies is therefore based on their expertise and understanding of employees' choice of work and the employers' choice of employees, which is why it is important for them to understand social and economic developments that affect people's choice of work. Trend analysis, which examines the development stages of phenomena from a weak signal to a strong signal, trend and megatrend, is a possible way to search for information about this development. Examining the transformation of the labour market

using trend analysis can produce information that is useful for both HR companies and employers in general.

HR-companies can be included in the group of Knowledge Intensive Business Services (KIBS). KIBS are businesses and services whose value creation is based on their expertise in a certain area. KIBS companies are divided in two types: technology based (T-KIBS), and professional based (P-KIBS), which this study focuses on (Nählinder 2005, 57). Since the operation of KIBS companies is based on their ability to create economic value through knowledge, their most valuable asset is human and structural capital. (Shearmur & Doloreux 2009, 81) The experience, skills and contacts that serves as the basis for the entire company is distributed among its employees, which makes it challenging to store it in the company's structures and systems. (Nählinder 2005, 57) As a result, KIBS companies significantly differ from traditional industries, where valuable production facilities and patents have set entry barriers for new companies in the market (Nählinder 2005, 57). This lowers the entry barriers for new players in the market, increases the competition among the players, and sets new challenges to strategies.

In order for an HR company to last in the competitive market, it must understand the trends affecting the industry, and adjust its strategy accordingly. Weak signals theory (Ansoff, 1975; Ansoff, 1984) provides a theoretical background for studying potentially emerging trends, in this case the transforming labour market, and it is therefore excellently suited as a strategic planning tool for fields that require agility, such as the HR industry. Weak signals can be identified from data collected from the employees of HR companies, from those experts on whom the company's ability to create value is based. By looking at the background and root causes of currently significant megatrends such as technological development and demographic change, new, emerging issues in the labour market can be identified. Therefore, this research is conducted as a case study that seeks to utilize weak signals theory to identify potentially emerging trends, which may have an impact in the Nordic operations of a global HR industry leader Adecco.

1.1 Previous research

Previous studies have examined the transformation of the labour market from the perspective of technological development and social phenomena. In addition, the operation of HR companies in the transforming labour market has been studied. Nevertheless, as Yip & Coe (2018) state, there are under-studied aspects in temporary staffing industry, such as how the market is formed by global divisions of labour, state immigration systems and local labour market culture. This indicates the need to look at the changing labour market in relation to the HR industry, under which temporary staffing also falls. In addition, Lier, Coe & Bråten (2015) state that staffing market research is not generalizable across nations, which highlights the need for research on a local level.

As mentioned earlier, this study utilizes the theory of weak signals to study potential future developments in the transformation of the labour market. Various studies have been conducted on topics such as the identification of weak signals (e.g. Pinsonneault & Choi, 2022; Ahlqvist & Uotila, 2020; Kim & Lee, 2017 Day & Schoemaker, 2005) and the managerial implications of weak signals (van Veen & Ortt, 2021; Holopainen & Toivonen, 2012; Ilmola & Kuusi, 2006; Mendonca, Cunha, Kaivo-oja & Ruff, 2004). However, most studies have looked at weak signals on a theoretical level, and few empirical studies have been conducted. One of the few academic research contributions in the field is Toivonen (2004), which looked at the driving forces, prospective trends and weak signals impacting the future of KIBS from the perspective of innovation.

However, the research in question does not concern labour market transformation and there is little research on the constantly evolving factors that impact people's choice of work. This highlights the need for empirical research that examines emerging phenomena in the labour market from the above-mentioned point of view. Moreover, it has been suggested that environmental scanning, which in this research takes place in the form of weak signal analysis, is one of the building blocks for successful organizational anticipation, coping and adaptation to adversity (Vakilzadeh & Haase 2020)

While previous studies have shown changes in the labour market due to technological development and the generational differences, there is a gap in research on the development of national labour markets. Therefore, this research aims to produce new knowledge about the transformation of the labour market on a local level in Finland. The research aims to understand social and economic factors that are relevant to employees, job seekers and employers, and which may have an impact on the business of HR companies. It should be noted that this research looks at the issues from the employee angle, as the research data is collected from the employees of the HR company, and not the job applicants or client companies. Moreover, this thesis is intended for the use of professionals in the HR or staffing industry, and utilization of the findings may require prior knowledge about the field.

1.2 Objectives of the research

As explained earlier, HR consulting companies are highly dependent on the labour market, balancing between the requirements of the workforce and the needs of client companies. At the same time, technological development brings new solutions and competing companies to the market, and demographic change causes challenges to match supply and demand of workforce. In the layout of the research questions, observations and shortcomings made in previous studies, characteristics of case studies, and the needs of the target industry and the case company have been taken into account.

The main research question which aims to find an answer to the entire research problem is formulated as follows:

Q1: What strategic issues are emerging under labour market transformation, which may affect HR companies? ¹

¹ Limited to the geographical area of Finland.

In order to answer the broad main research question, sub-research questions have been formed, which aim to answer individual problems from a narrower perspective. These smaller questions make it possible to answer the main research question by combining the collected information. The sub-questions are formatted as follows:

SQ1 What emerging factors are affecting people's choice of work?

SQ2: What phenomena are emerging as important influencers between HR companies and customers?

The research questions are answered by analyzing the data collected in the study. The answers are found later in the paper, in the discussion section.

1.3 Structure of the research

This paragraph explains the structure of this paper. Figure 1 illustrates the structure of the research and the research process.

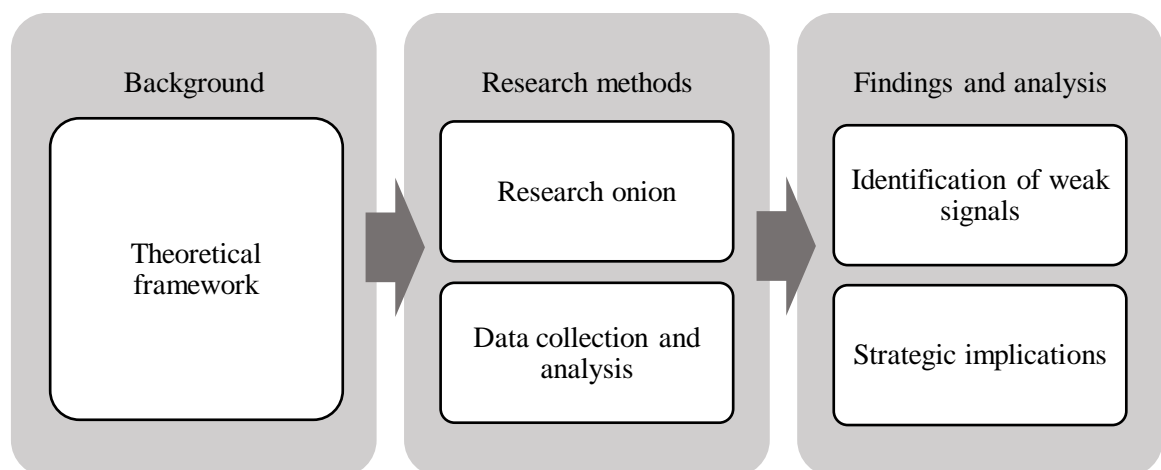


Figure 1: Structure of the research

The first part of the study consists of a literature review, which forms the theoretical framework of the study. Concepts relevant to the research are presented, and their connections and interdependencies are examined. In the next section, the research data collection and analytic process is explained, with the aim to identify weak signals with semi-structured interviews. Finally, the findings of this research are presented, following with trend analysis and identification of weak signals. Moreover, the findings are looked at in the light of the theories in the theoretical framework.

2 Theoretical framework

In this section, theoretical concepts relevant to the research and previous studies related to the topic are presented. The theoretical framework is structured as follows: First, strategy is examined in terms of strategy formation, in addition to which the importance of strategic resilience is discussed. Following this, weak signals are examined in connection to strategic resilience. Third, labour market transformation will be reviewed, and the relevant megatrends are presented. Figure 2 indicates the current phase of the paper.

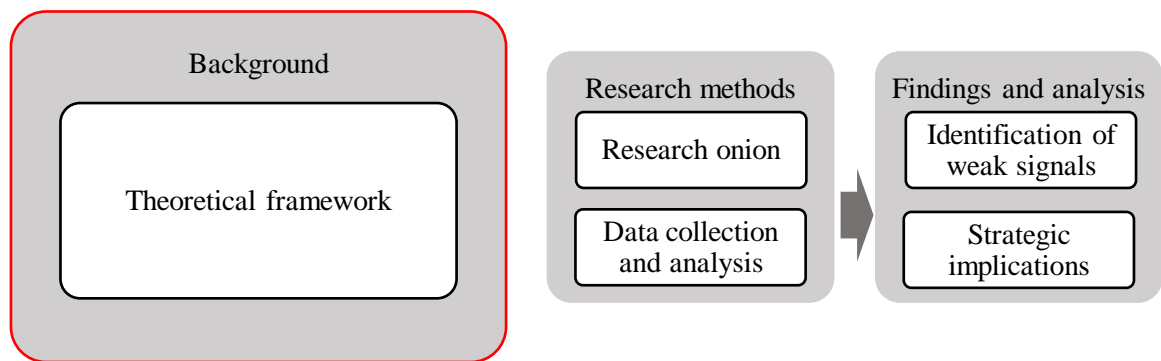


Figure 2: Phase of the paper: Background

The theoretical framework of this research is built on the concept of environmental scanning (traditionally described through Porter's five forces model (Porter, 1981)), which adds to strategic resilience (Yu, Chiu & Chan, 2023). This scanning may be of 'weak signals' and also 'megatrends' (Yunna & Yisheng, 2014; Kompalla, Geldmacher, Just & Lange, 2017). In this thesis, the key strategic issue proposed for scanning is labour market transformation. Figure 3 shows how these theories are linked to each other in this paper.

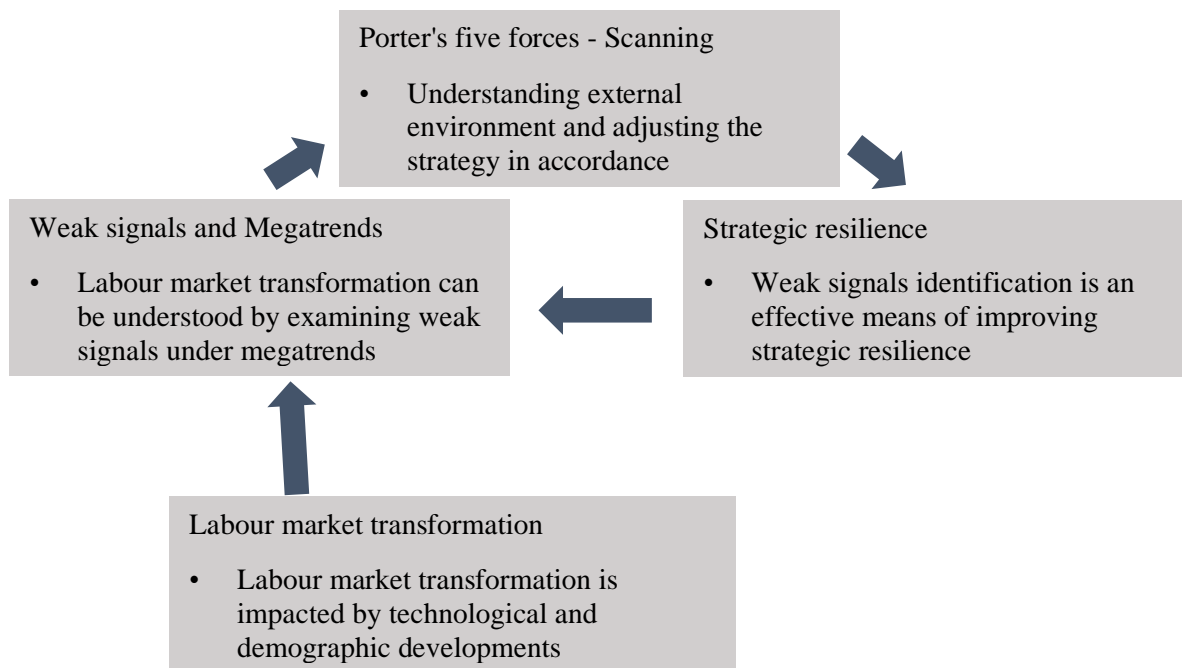


Figure 3: The link between theoretical concepts

As figure 3 shows, the theoretical framework of this paper consists of three different theoretical concepts. Porter's five force model is used as the main strategy literature, because it emphasizes the importance of the external environment in strategic planning. After this, it is presented how strategic resilience and the examination of weak signals are related to each other. Finally, literature on labour market transformation and megatrends is reviewed. Megatrends can be a source of weak signals, and therefore understanding them is important for scanning the external environment of a company.

2.1 Strategy and strategic issues

All the activities of a company or organization are based on a strategy, a plan, that is used to lead the entity from its current state to a desired state. In other words, strategy is a set of actions that aim to achieve a certain goal over a long period of time. A competitive strategy aims to produce competitive advantage in the market against other companies (Porter, 1980). Porter (1996, 39) defines competitive strategy as a combination of activities that differ from the competitors, thus delivering a unique mix of value.

In order to truly understand the strategy of a company, it is necessary to know the process of strategic formulation. Various perspectives have been presented in academia that can be used in the formulation of a strategy. This research utilizes Porter's theory for competitive strategy, as it especially emphasizes the importance of the industry level and the external environment in the company's strategic planning. Porter's (1981) theory for competitive strategy focuses on scanning the environmental factors, competition and especially the industry structure in the formation of strategy. Therefore, understanding the big picture and relating the company to its environment should be the starting point of strategic formulation. This is where the Porter's five forces model originates, which describes the prevailing competitive forces in the industry (Figure 4).

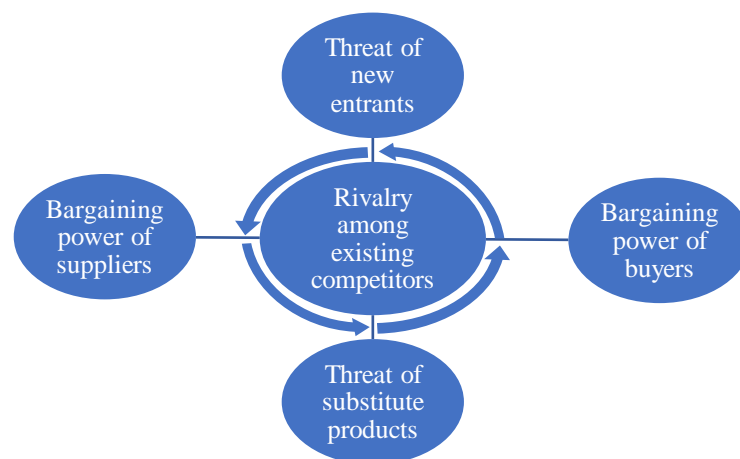


Figure 4: Porter's five forces

According to the theory, the strength of the prevailing competitive forces in the industry determines its profit potential. As figure 4 shows, the five forces include threat of new entrants, bargaining power of suppliers, threat of substitute products, bargaining power of buyers and finally the rivalry among existing competitors. According to Porter, the formation of a strategy begins with the identification of these forces. The aim of a competitive strategy is to find a position for the organization where it can best defend itself against these competitive forces (Porter 1981, 4). The Five Forces model is perfectly suited to the analysis of the strategic effects of weak signals in this study. In the HR industry, employees can be considered suppliers, while client companies are the buyers. In a field with low market-entry barriers, the threat of new entrants is high, and alternative service solutions, substitute

products, are constantly introduced to the market. At the same time, changes in the external environment significantly affect and alter these competitive forces.

2.2 Strategic resilience

As Komutanont & Pires (2016) suggest, it is possible to use Porter's five forces model to improve strategic resilience. According to Gunha, Gomes, Mellahi, Miner & Rego (2013), organizations face a challenge of balancing the value of strategic consistency with the value of agility to respond to unexpected problems, opportunities and trends. Consequently, organizations must build strategic resilience, where environmental scanning can be a powerful tool.

Strategic resilience refers to a company's ability to adapt to changing circumstances, take advantage of emerging opportunities and turn threats into advantages (Välikangas, 2016). It is not only about responding to and recovering from a single crisis, but continually predicting and reacting to trends affecting value generation (Manning & Soon 2016, 1480). As Vogus & Sutcliffe (2007, 3420) state, resilient organizations are able to detect relevant weak signals in their early state of emergence, as they have developed capabilities to respond to a variety of events through constant scanning of their ongoing operations. Weak signals are based on the assumption that strategic surprises do not emerge without any warning signs, which can be identified through environmental scanning (Georgiadis & Raubal 2020, 6).

2.3 Weak signals

Weak signals are signs of potential changes, new directions of development, and future events, which may have extensive and rapid socio-economic consequences (von Groddeck & Schwarz 2013, 28; Dufva 2019). It is possible that weak signals evolve into strong signals, trends and megatrends, and therefore they can be used to study the future, which makes them relevant both for business management and science. (Kaivo-oja 2012, 206-207; Holopainen & Toivonen 2012, 199; Ahlqvist, Uotila & Hietanen 2015, 49-50). In theory, organizations,

nations and individuals can get a first-mover advantage when they engage in weak signal detection (Ahlqvist & Uotila 2020, 2). However, weak signals cannot be exploited if organizations ignore them and are unable to utilize them in strategic planning (Kaivo-oja 2012, 206). Through strategic planning it is possible to exploit weak signals to gain competitive advantage.

In order to use weak signals in strategic planning, one must understand their basics. According to Ahlqvist & Uotila (2020), the theory of weak signals has three basic assumptions:

1. Weak signals are emerging issues.
2. Their emergence is linear, i.e., they develop linearly from the early stage towards more developed levels.
3. The issues have some general characteristic that makes it possible to identify them as weak signals.

These three basic assumptions form what is called Ansoffian's theory in the literature. While complementary and alternative approaches have been presented to these basic assumptions, such as the constructive theory (Schoemaker & Day, 2009; Rossel, 2012), this study focuses on the original Ansoffian theory. The Ansoffian theories can be summarized as follows: weak signals are in the external environment of the observer, they can be identified as distinct and separate from the surroundings, and they may be identified in their early or nascent state (Rossel, 2012). The practical application of weak signals theory will be explained in methodology section.

2.4 Labour market transformation

In order to study weak signals in the labour market transformation, one should know what has been previously found on the topic in academia. Recent academic studies on labour market transformation are shown below.

Table 1: Recent studies on labour market transformation

Conclusions	Authors
<ul style="list-style-type: none"> • Focus on Platform work: Increasing gig-work, dis-organization, division of production procedures, restructuring of tasks, outsourcing • Structural transformation of employment relationship 	Li, Mo & Zhou (2022)
<ul style="list-style-type: none"> • Focus on digital transformation: authors commonly over-estimate the likelihood of automation and substitutability of occupations • Unskilled, semiskilled and specialist occupations have high potential for substitution • Almost all jobs have tasks that cannot be performed by machines 	Dengler & Matthes (2018)
<ul style="list-style-type: none"> • Growing demand for new professional skills as a result of ICT (Information and communication technology) • Basic administrative jobs and many manual tasks are likely to be substituted • Personal and mental abilities will grow in importance 	Eberhard, Podio, Alonso, Radovica, Avotina, Peiseniece, Sendon, Lozano & Solé-Pla (2017)
<ul style="list-style-type: none"> • Emphasis on digital and technical skills over soft skills • Intellectual, innovative and creative jobs will be in high demand 	Gangoda, Krasley & Cobb (2022)
<ul style="list-style-type: none"> • technological development changes the needs of companies towards workforce • the increasing use of platform- based business models • Job polarization: Division to desirable and undesirable jobs • Increasing non-standard employment 	Švarc and Dabić (2021)
<ul style="list-style-type: none"> • New generation of employees who are characterized by efficient use of technologies, value independence and autonomy • Gen Z employees value meaningful work, teamwork, diversity, ethical conduct, social responsibility and require a close relationship with managers 	Rodriguez, Ardoin & Landberg (2021)
<ul style="list-style-type: none"> • Temporary staffing industry: Growth restricted by regulations and labour market 	Yip & Coe (2018)

<ul style="list-style-type: none"> • Focus on regulation and immigration policies • National staffing markets are dynamic and complex institutional configurations, and the research cannot be generalized across national borders 	Jordhus-Lier, Coe, Bråten (2015)
<ul style="list-style-type: none"> • (Literature review) Future research opportunities include: institutional role of agencies, development of national labour markets, industry globalization and agencies in connection to national migration processes 	Coe, Jones & Ward (2010)

As table 1 shows, some studies have been made on social and technological developments that impact the transformation of the labour market. However, most studies have focused on individual phenomena instead of examining the labour market transformation as a whole. On the other hand, some research have been conducted on temporary staffing industry, but these have mostly concentrated on regulatory and immigration aspects of labour market.

Although labor market transformation has not been identified as its own megatrend, it is a significant wave of change that is linked to many megatrends. As explained in the introduction, both demographic change and technological development are driving a major transformation in the labor market. While changing companies' need for human resources and ways of working, technological development also enables the outsourcing or offshoring of work across national borders in new extents. At the same time, labor shortage forces companies to look for employees from new regions. Amid great forces of change, people, organizations and economies are looking for their position. Švarc and Dabić (2021) examined four theoretical concepts that illuminate the change caused by technological development in the labor market.

Table 2 below explains these theoretical concepts, and their potential consequences in the labor market.

Table 2: Technological development and the labour market transformation (Švarc and Dabić 2021, 2-4)

Concept and explanation	Possible consequences in the labor market
Digitalization of work: technological development changes the needs of companies towards the workforce	<ul style="list-style-type: none"> • Technological unemployment due to digitalization or robotization • Zero marginal costs, free services, improved work efficiency through robotization, new job markets and the rise of networks of micro-entrepreneurs competing against traditional corporations.
Platform work: the increasing use of platform-based business models which create a new type of sociotechnical work system	<ul style="list-style-type: none"> • Company concentration, network effects, ambiguous management through algorithms • Obscure boundaries between employers and employees, disruption of traditional labor market relations and labor-capital relations • Possibly takes a dominant position in the future • Lower entry barriers to the labor market, increased participation • Increasing crowdwork where human labor is decomposed into small components or micro-tasks
Job polarization: biased technological development changes the labor market into desirable and undesirable jobs	<ul style="list-style-type: none"> • Jobs that require analytical thinking, high knowledge and problem-solving capabilities are favored • Increasing number of jobs in high and low paid job extremes • Vanishing of mid-level and mid-wage jobs, pushing these employees towards unemployment, undesirable platform-work or low-wage service employment
Non-standard employment: Work outside traditional boundaries, such as platform work.	<ul style="list-style-type: none"> • Ethical, legal and regulatory controversies • Traditional business models are challenged, as platform companies are able to escape taxes and pay low wages • Employees must themselves manage social security, pension payments, sickness and unemployment.

As table 2 shows, technology trends have major effects on the labor market. The socio-economic consequences of the changes in the labor market are significant, challenging organizations as the threat of increasing inequality and risked well-being rises concerns.

Academic findings on the transformation of the labour market so far can be summarized as follows: Platform work is increasing in importance, and new types of employment relationships are emerging. Due to the impact of technological development, employers' requirements for employees are changing, and jobs are becoming more polarized. Automation and robotization is likely to replace some jobs, but does not pose a significant

threat to employment. In addition, the new generation of employees, Gen-Z, brings changes to workplaces, as young employees value and demand different aspects from their work. The Staffing industry is also under stress in the labour market transformation, and country-specific legislative differences greatly affect the future of companies in the industry

2.5 Megatrends

Megatrends have a major impact on labor market transformation, so understanding megatrends is important to identify weak signals. A megatrend is a trend (i.e. a pattern or direction of flow) that takes place on a global scale. The interest in megatrends as a research topic has grown significantly since the beginning of the 21st century. The number of new documents containing the word megatrend in the Scopus database has increased from three in 2003 to 119 in 2022. There is no single organization that defines the current megatrends, instead, various organizations such as consulting companies, research institutes and associations publish their own reviews on megatrends. Therefore, in academia, megatrends are often visible as a growing interest in certain topics or subject areas.

Some concern regarding the utilization of megatrends in strategic management has also been represented in academic works. Von Groddeck et al. (2013) argue that megatrends are empty signifiers, as they are too narrowly defined in their abstractness to convey a concrete purpose to management. Therefore, using megatrends to determine the direction of an organization and its strategic planning may direct thinking into a certain direction that is not actually helpful or strategically important for the company. In practice, this happens as a result of the organization focusing only on the information that supports the chosen megatrend, ignoring the underlying influencers (Von Groddeck et al. 2013, 34). However, the authors suggest using megatrends as a starting point for an analytical strategy, and trying to reconstruct how these signifiers are sought, given value and fixated in discourses. This emphasizes the use of weak signals in strategic planning. Weak signals are in the early stages of trend development, i.e. primal megatrends. Consequently, they are more bound to the practical level, providing better support to business leadership. Weak signals can be sought under existing megatrends, which may reveal smaller emerging changes.

Table 3 shows some of the currently recognized megatrends, and the organizations that have listed them.

Table 3. Megatrends

Megatrend	Identified by
Demographic change	PWC, BlackRock, EY, WEF
Technological development	PWC, BlackRock, EY, WEF
Climate change	PWC, BlackRock, EY, WEF
Behavioral economy	EY
Global economic power shift	PWC, BlackRock
Social instability	PWC, WEF

As table 3 shows, the identified megatrends vary across different organizations. The following sub-sections introduce the relevant megatrends for this research.

2.5.1 Behavioral economy

Behavioral economy is often placed under technological development and digitalization, but some organizations recognize it as its own megatrend. Behavioral economy refers to the increasing value of understanding human behavior. Digital services collect remarkable amounts of data about users' behavior patterns, preferences and states of mind. This data can be used for instruments of precise and sophisticated persuasion, and it is becoming an increasingly valuable commodity. (EY 2020, 39; Esteve 2017, 36)

2.5.2 Demographic change

Demographic change is expected to have major effects on business. While labor-force participation among adults was at record high in 2019 in the European region, demographic

change has significant effects on labor availability (European Commission, 2022). In developing countries, the labor shortage particularly concerns highly skilled people, while in developed countries the increasing demand for care workers and the low supply of construction workers among others grows the need to attract workforce from abroad (PWC 2022, 13). The emerging generations also have different consumption habits and needs, which may have long-term effects on the demand for different services and products. As many public institutions have reported, the labor shortage is a current problem in Finland (Työ- ja elinkeinoministeriö, 2023), Sweden (Statistikmyndigheten 2022, 3) and Norway (NAV, 2022) among many other countries.

2.5.3 Technological development

Technological development enables value creation in new, versatile and efficient ways. Emerging technologies such as artificial intelligence (AI), robotics and material sciences solve problems and drive development forward. However, these also transform the labor market, and pose new challenges for health and safety. (European Commission, 2023; PWC 2022, 9) According to World Economic Forum (WEF, 2023), technological development is seen as one of the most relevant megatrends for investors and businesses.

The requirements for labour in various industries is under radical change due to technological development. Despite public concern, automation is expected to eliminate only few occupations completely, instead the workload of people may be considerably simplified and reduced. Technological development is expected to transform not only manufacturing industries, but also industries that involve a large share of knowledge work. (McKinsey, 2016; PWC 2022, 10) A research by McKinsey (2016) found predictable physical work, data processing and data collection to be at a significant risk of being replaced by automation, while managerial work and occupations that require the application of expertise or unpredictable physical work are at a low risk of being replaced by automation.

2.6 Summary

Based on the findings of previous studies and academic literature, there are some weak signals and megatrends that can be watched for in the data of this study. The effects of technological development on the needs of employers, the growth of platform working, and signs of job polarization should be scanned from the collected data. Moreover, the realization of demographic change as the transition of generation Z to the labour market, changing values and its effects on management will be looked for. Finally, signs of behavioural economy in the HR industry and labour market transformation will be scanned.

3 Research methods

This section presents the research methodology. First, the philosophical perspective of the research, as well as the following data collection and analysis methods are defined. Next, the researched industry and the typical characteristics of its companies are discussed. Finally, the theory of applying weak signals in practice is explained.

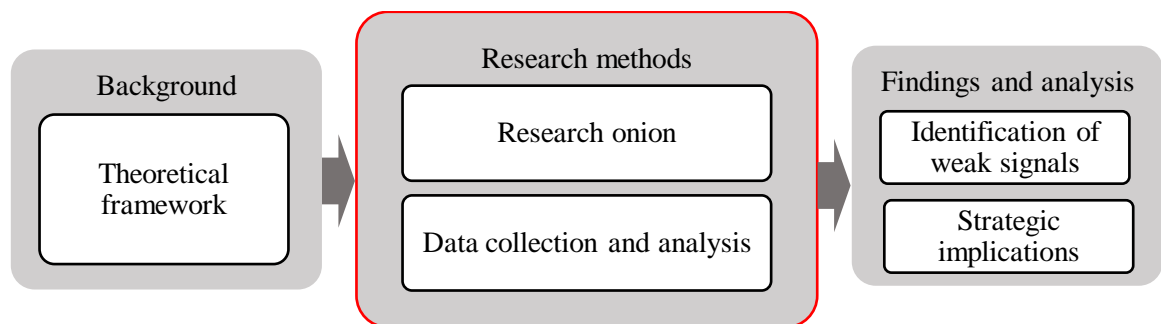


Figure 5: Phase of the paper: Research methods

As shown in figure 5, the research methods section explains the relevant methodological aspects of this research.

Saunders, Lewis & Thornhill (2016) introduced the research onion, a model which presents the various issues that impact the choice of data collection technique and mode of analysis. Defining these is important because they clarify the logic of thinking behind the research. Figure 6 shows a simplified version of the research onion, which shows the issues to be considered.

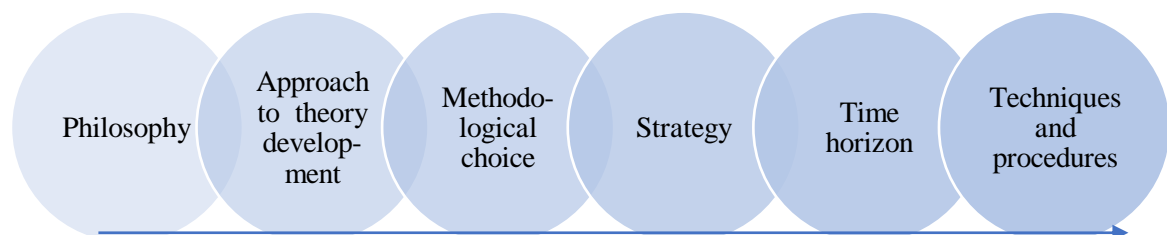


Figure 6: Peeled research onion. Source: Saunders, Lewis & Thornhill (2016, 124)

As figure 6 presents, the outermost layer is research philosophy, which determines the beliefs and assumptions behind the development of knowledge in the research. Research philosophies include Positivism, Critical realism, Interpretivism, Post-modernism and Pragmatism (Saunders, Lewis & Thornhill 2016, 136).

This research applies pragmatism as the research philosophy for several reasons. In the research of futures, trends and other similar phenomena, the examination depends strongly on the perceptions, views and values of social actors. Pragmatism combines both subjectivist perspective, which emphasizes that different people perceive reality in different ways, and objectivist perspective, which emphasizes facts, and accurate and rigorous knowledge. On the contrary, the strictly objectivist approach in positivism and critical realism limits to one observable reality excluding them from this research. Moreover, while interpretivism and postmodernism have many similarities with pragmatism, their epistemological views and typical research methods make them less favourable for this research. Particularly the deconstructive methodological approach and radically subjectivist nature in postmodernism and the epistemological target to create new understandings and worldviews in interpretivism make them less suitable for this study. (Saunders, Lewis & Thornhill 2016, 136-143)

The second stage in research onion is determining the approach to theory development. The three alternative approaches are deductive, inductive and abductive reasoning, which fundamentally differ from each other. In simple terms, deductive reasoning derives a conclusion from a set of premises which must be true for the conclusion to be true. Abductive approach, on the other hand, first sets a conclusion, and then determines a set of premises that sufficiently explain that solution. Finally, Inductive reasoning, which is used in this research, uses observations that are found or believed to be true to justify the conclusion. (Saunders, Lewis & Thornhill 2016, 144-145) Inductive reasoning is an appropriate approach, as the purpose of this research is to use the observations made to draw a conclusion.

The next stage is to determine the methodological choice for the research. Different options include quantitative, qualitative and mixed methods research design. Quantitative research uses numerical or large amounts of data, while qualitative research uses non-numerical data. Non-numerical data refers to texts, images or, as in this study, interviews. In addition, a research design may include a single data collection technique (mono method) or several data collection techniques (multi-method). (Saunders, Lewis & Thornhill 2016, 164-168) Due to the allocated time and resources, mono method qualitative study is an appropriate methodological choice for this research.

Research strategy is a plan on how to answer the research questions and meet the objectives. It can also be said that research strategy is a step from research philosophy to practical methods. (Saunders, Lewis & Thornhill 2016, 177-178) There are various research strategies for studying different topics, and this research is conducted as a case study. Case studies look closely at a phenomenon or topic in a real-world setting, which makes them suitable for this paper. In this research, the case industry is Human Resource Consultancy business, and the phenomenon under consideration is the transformation taking place in the labour market. The advantage of case studies is their strong linkage to real environment, which enables production of accurate empirical descriptions and theoretical development. In other research strategies, such as experiment or survey, there is a risk of distortion of the results in the controlled environment. Moreover, using other research strategies to study the topic would be more complex and challenging.

The time horizon of the study determines whether the object of the study is examined at one point in time (Cross-sectional studies), or if the researched phenomenon will be observed over a longer period of time (Longitudinal studies). Carrying out a longitudinal study would require a lengthy research process and collection of interviews from several different points in time. In this study, data is collected through interviews, which are carried out within a short period of time. Moreover, the data needed for the research is not available from earlier times, and therefore this is conducted as cross-sectional research.

3.1 Data collection

This section discusses the last part of the research onion model, techniques and procedures. The previous paragraphs explained the background of the research from philosophy to practical strategy. Next, data collection and analysis methods will be reviewed.

3.1.1 HR Consulting Industry

The HR Consultancy industry is based on producing services that assist supply and demand to meet on the labor market. There is a large number of companies of various sizes operating in the field, both local and global, and many of them are specialized in different customer and professional segments. The companies provide staffing for customers' short and long-term needs, offer a wide range of expert services for accurate recruitment of professionals with specific skill sets, and produce services for staff development and evaluation. As a result, client companies can reduce the need for an internal HR department and payroll, save recruitment costs, make more precise recruitments and improve their operational efficiency. The industry is under a change accelerated by technological development, as the requirements for quicker and more agile service solutions increase among the customer companies. In addition, the platform economy and low entry barriers and start-up costs in the KIBS sector increase competition.

The case company of this research, Adecco Finland, is part of the Swiss multinational company The Adecco Group, which includes several subsidiaries specializing in different solutions for different industries. The company is included on the Global Fortune 500 list, which means that it is among the world's 500 largest companies in terms of turnover. The company employs 34,000 employees globally, of which approximately 150 work in the 16 offices in Finland. The company has been operating in Finland since 1997, serving more than 1,000 customer companies and continuously providing over 2,000 people in temporary staffing. (Adecco Finland, 2023) In Finland there are two brands under The Adecco Group: Adecco, which focuses on various industries from production to logistics, and Sihti, which focuses on construction industry. However, this study specifically focuses on Adecco.

3.1.2 Research data

As mentioned earlier, this research is carried out as a qualitative case study. Semi-structured interviews are used as the data collection method to interview the representatives in the target company. Semi-structured interviews are a popular data collection method, as they enable versatile interaction between the interviewer and the interviewee, allowing for follow-up questions to clarify and obtain additional information (Galletta & Cross 2012, 24). In addition, they can be used in both individual and group interviews (Kallio et al. 2016, 1954).

There are some aspects to consider when studying weak signals. Therefore, the selection of interviewees is based on previous studies, availability of interviewees and the wishes of the target company. As suggested by Pinsonneault & Choi (2022, 656), customer-facing experts such as salespeople and customer support have a high chance of sensing weak signals in the market. For this reason, three people from sales and customer account management positions, and three people from staffing and employee relations positions were selected for the interviews. The salespeople are customer-facing experts working directly with the customer companies, while the staff-facing employees are in contact with the workforce, who could also be referred to as "customers" in the industry. In addition, the researcher's own experience in the target industry helped to create the questions in a form that is relevant for the research, and to effectively gather versatile information from various expert perspectives. Figure 7 shows the different knowledge areas, which impacted the choice of interviewees.

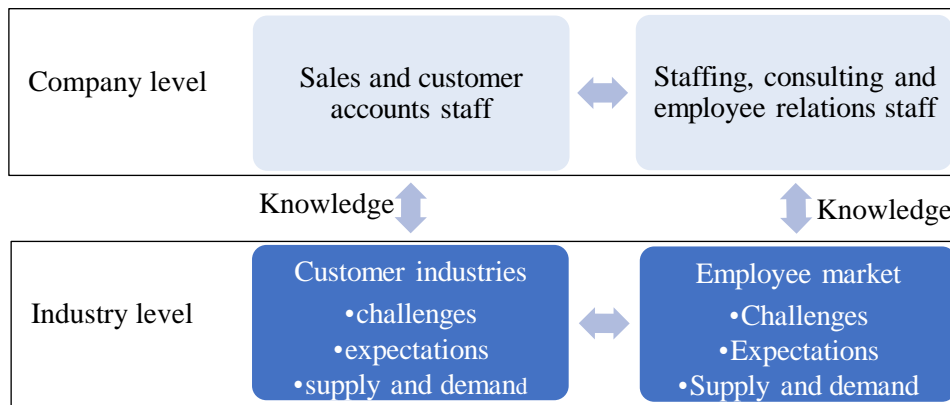


Figure 7: Knowledge areas of the interviewees

Since the importance of context and variety in observers is often emphasized in literature about identifying weak signals (Ahlqvist & Uotila, 2020), the interviewees were chosen from diverse structural and relational backgrounds. Moreover, as suggested by Pinsonneault & Choi (2022, 656-657), social media increases the likeliness of an individual to encounter new information, and thus use of social media was used as a criterion in the selection. The interviewees were collected with the help of an employee of the HR department of the target company. In addition to other criteria, emphasis was placed on the persons' work experience in the field and the versatility of the interviewees' work tasks. Table 4 shows the list of interviewees in this research.

Table 4: List of interviewees

Position	Tasks in the organization	Years in the field
Account manager	Hybrid: Recruitment consulting, customer acquisition	14 years
Employee relation specialist	Everything employment related for temporary staffing	9 years
Key Account Manager	Managing some of the largest customer accounts	5 years

Account Manager	Managing, developing and growing existing customers	4 years
Senior HR consultant	Recruitment consulting	10 years
HR consultant	Recruitment consulting, Early support against sick leaves and to improve ability to work	15 years

As Hirsjärvi & Hurme (2022) mention, a common language between the interviewer and the interviewee is important. In this case, the parties are active subjects whose language use is proactive and opinionated. In addition, the risk of misunderstandings is reduced, and more detailed information can be collected. Therefore, the interviews were conducted in Finnish.

The interview questions were formatted in accordance with the framework proposed by Kallio et al. (2016). According to the framework, interview questions should be divided into main themes and follow-up questions, and the questions should proceed in a progressive and logical order. The main themes aim to direct the interview to certain topics, and the follow-up questions make the interview conversational. The knowledge gained from the literature review was also utilized to format the questions. Moreover, the interview questions were constantly developed to take into account new issues that arose during the interviews.

3.2 Data analysis: identifying weak signals

The data collection process is followed by analysis, which in this case aims to identify potential weak signals. The weak signal theory (Ansoff, 2019) sets some requirements and guidelines for analyzing weak signals. However, before the data could be properly utilized and analyzed, it had to be refined.

There are several methods for data analysis. However, the quality of the data partly determines the type of analysis method that can be used. It is challenging to apply calculation

programs suitable for quantitative data to the analysis of qualitative data. In this study, thematic analysis is used for data analysis, which is one of the most popular analysis methods for qualitative data (Ozuem, Willis & Howell 2021, 143). In thematic method, recurring patterns and structures are identified from the data collected, which are classified "coded" into meaningful themes (Campbell, Orr, Durepos, Nguyen, Li, Whitmore, Gehrke, Graham & Jack 2021, 2012). Small pieces of information that share the same core idea are combined to structure larger entities, which enable organization of information and reporting of observations. Moreover, thematic analysis not only aims to categorize the data, but also to identify and interpret relevant pieces of information for the research questions. (Clarke & Braun 2017, 297)

Thematic analysis is useful for several reasons: Firstly, it enables comprehension of large and tortuous amounts of qualitative data. Secondly, it can be used to combine data from several sources, such as from different interviews. Third, it enables the identification of themes and commonalities for further research. Fourth, explanations and theories can be developed and tested with the findings of thematic analysis. Fifth, it is possible to make and verify conclusions using thematic analysis. (Clarke & Braun 2017, 297-298; Saunders, Lewis & Thornhill 2016, 579; Nowell, Norris, White & Moules, 2017) The analytic process in thematic analysis can be divided in five (Ozuem, Willis & Howell, 2021) or six steps (Campbell et al. 2021; Lorelli et al. 2017). Figure 8 briefly shows the analytic process used in this research.

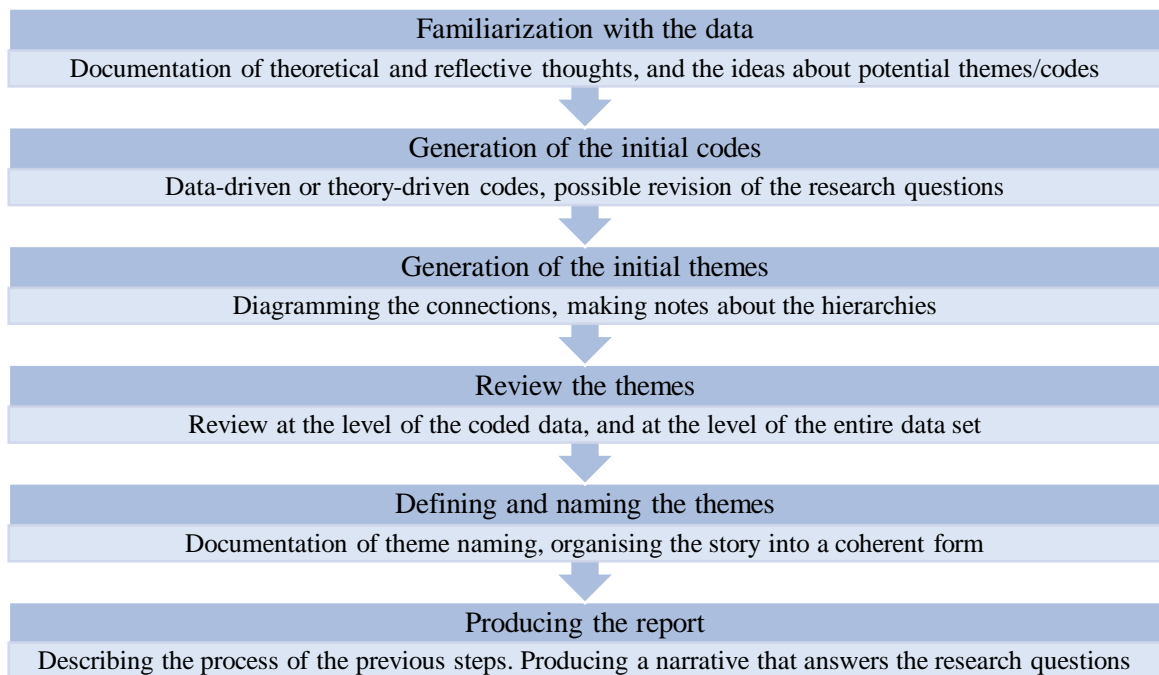


Figure 8: Thematic analysis process. (Campbell et al. 2021; Lorelli et al. 2017)

The interviews were conducted and recorded using Microsoft Teams. The recorded data was in video format, which according to the thematic analysis was changed into written form, i.e. transcribed. Transcribing, although a laborious part of research, forces the researcher to familiarize themselves with the collected data, which provides a good basis for the analysis (Nowell, Norris, White & Moules 2017, 5). In written form, processing data and extracting information from it is easier. The participants' non-verbal communications and tone were also taken to account in the transcription, as Saunders, Lewis & Thornhill (2016, 572) state, these are important to note in order to capture all the information from the interviews. After transcribing the text thoroughly, the analysis process was continued as shown in figure 8.

There are various software for transcribing and coding the material. As Saunders, Lewis & Thornhill (2016, 573) mention, different transcription methods have their advantages and disadvantages. Transcribing is possible to be performed completely automatically with programs that convert sound to text, but they involve the risk of missing or misinterpreting information. On the other hand, completely manual transcribing is time-consuming, and it involves the risk of mistakes as well. Therefore, this study used a combination of both

methods: transcription was first generated with a software, and then supplemented with manual transcription.

Georgiadis & Raubal (2020) suggested four levels of maturity to weak signal detection applications based on their level of automation, which helps distinguish the weak signals detection methodological approach used in this study from others. Due to the nature of this study, first maturity level (low-automation) application is used, which is common for research on social systems. This is particularly because social phenomena are difficult to measure, which limits their scanning for weak signals. The first maturity level applications are based on a non-mathematical approach, relying on experts in the identification of weak signals. Experts are used to set the weak signal scope, their identification and interpretation.

As mentioned earlier, identifying weak signals with thematic analysis is partly directed by theory on weak signals. According to Ansoff (2019, 454), identification of weak signals begins with listening for early warning signs of threats and opportunities. The environment should be scanned for potential sources of surprise, and these must be described with sufficient precision. Ansoff also emphasizes the importance of sensitivity and expertise in observers, and the diversity of observers to expand detection. Individuals working in the interface functions of an organization are highlighted as a good source of external weak signals. In this research, the environmental scanning and listening was done in the data collection phase by interviewing the professionals “experts” in the HR consulting field. In addition, the diversity of the selected interviewees was considered within the limits of the study.

Table 5 shows the themes and their sub-groups up to the first level codes.

Table 5: Themes and sub-groups

Theme	Theme	Theme	Theme
<ul style="list-style-type: none"> Tools of competition Customers Price Services Experience Availability Employees Salary Employer brand Employment benefits number of shifts 	<ul style="list-style-type: none"> Impact of technology AI Employers Objections Employees Platform economy Light-entrepreneurship Objections Law Digital technologies Employee expectations Customer expectations Labour shortage Impact of platforms Automatization High costs of automatization Labour-based immigration Unattractiveness Language barriers Legislation Cultural counterforces Company requirements High standards Changing labour needs 	<ul style="list-style-type: none"> Gen-Z Accelerating labour market Growing employee turnover Decreasing age of work-life entrants Issues Concentration Increasing salary requirements Psychological issues Sickleaves New priorities Underlying causes of issues 	<ul style="list-style-type: none"> Work polarization Unattractive jobs Attractive jobs Inheritance of work

3.3 Trustworthiness of this research

Conducting high-quality research requires continuous assessment of the established quality criteria throughout the research process. It should be noted that this study must use evaluation criteria intended for qualitative research, which differ from the evaluation criteria for quantitative research (Eskola & Suoranta, 1998). Lincoln and Guba (1985) suggest evaluating qualitative research with the criteria of credibility, transferability, dependability and confirmability, instead of the traditional validity and reliability criteria used in quantitative research. The aim of the criteria is to ensure the transparency of the research, and to identify possible shortcomings and strengths. It is challenging to completely eliminate the possibility of error in research, but with awareness of risk factors, the likelihood of error can be significantly decreased.

Credibility refers to how accurately the researcher conveys the views of the interviewees in the research results (Tobin & Begley 2004, 391). In other words, credibility is the certainty of the results being true, credible and believable (Forero, Nahidi, De Costa, Mohsin, Fitzgerald, Gibson, McCarthy & Aboagye-Sarfo 2018, 3). Table 6 shows some of the research strategies used to improve credibility in this study.

Table 5: Adding Credibility (Lincoln & Guba, 1985; Tobin & Begley, 2004; Forero et al. 2018)

Strategy	This research
Prolonged engagement: The researcher's long-term contact with the phenomenon or respondents in the field to identify possible disturbances and relevant issues.	The researcher's continuous contact with the target industry for one year
Negative case analysis: Active search for negative instances and opposing views for the researched phenomena	Both supporting and opposing observations were taken into account in the analysis
Interview process and techniques: Testing the functionality of interview methods to collect reliable information	The interview questions were constantly developed within the limits of a thematic interview

Peer debriefing: External audit of research processes	Regular discussions with the thesis examiners
---	---

Since case studies have individual characteristics that complicate direct transferability of the findings (Forero et al. 2018, 3), the researcher must provide sufficiently accurate descriptions so that transferability of the findings can be assessed in other studies (Lorelli et al. 2017). In this study, transferability was considered by explaining the context of the study in detail.

Dependability, which is comparable to reliability, refers to whether the findings of the research are repeatable (Forero et al. 2018, 3). This is achieved through a logical, traceable and clearly documented research process, which also enables readers to assess the dependability of the research independently (Tobin & Begley, 2004; Lincoln & Guba, 1985). In this study, dependability was taken into account by explaining the relevant factors of the research process.

Confirmability is comparable to objectivity or neutrality, and means that the origin of the interpretations and findings comes from the research data, and not from the researcher's opinions or imagination (Tobin & Begley 2004, 392). This study takes confirmability into account by justifying the findings with the collected data. In addition, by considering and fulfilling other trustworthiness criteria, the confirmability of the research can be improved.

Four threats that may decrease the reliability of a research are suggested by Saunders, Lewis & Thornhill (2016, 203): participant error, participant bias, researcher error and researcher bias. This research sought to minimize these threats by taking the actions described below.

Table 6: Four threats to reliability (Saunders, Lewis & Thornhill 2016, 203)

Threat	This research
Participant error: Any factor that affects the performance of the	A minimum of 30 minutes was reserved for each interview. The interviews were held in the morning

interviewee, such as hurry, fatigue or motivation.	or afternoon, but not right at the beginning or end of the working day. The interviews were voluntary, so the interviewees were allowed to choose whether they want to participate.
Participant bias: Any factor that causes a false answer, such as the location of the interview, which risks the anonymity of the interviewee's answers.	The interviewees were allowed to choose an interview location where they are comfortable to answer the questions.
Researcher error: Any factor that affects the researcher's interpretation, such as the researcher's fatigue or unpreparedness for the interview.	Countered with the same means as participant error. In addition, the researcher prepared for each interview separately based on the previous interview.
Researcher bias: Any factor that causes bias in the researcher's interpretation and recording of the participant's responses, such as subjective opinions or perspectives that prevent fair and accurate interpretation and recording of responses.	The interviews were recorded and transcribed, which allowed recurring review and evaluation. In addition, conflicting and different observations were brought up in the analysis section.

As table 7 shows, the study tried to take into account the four threats affecting reliability with different factors. In addition, the course of the study was constantly evaluated to ensure quality.

4 Findings and analysis

The previous sections provided a look at the background of the research, and the research methods. This section first presents the data collected in the empirical study, after which the data is analysed according to the theory of weak signals. Figure 9 below shows the phase of the paper.

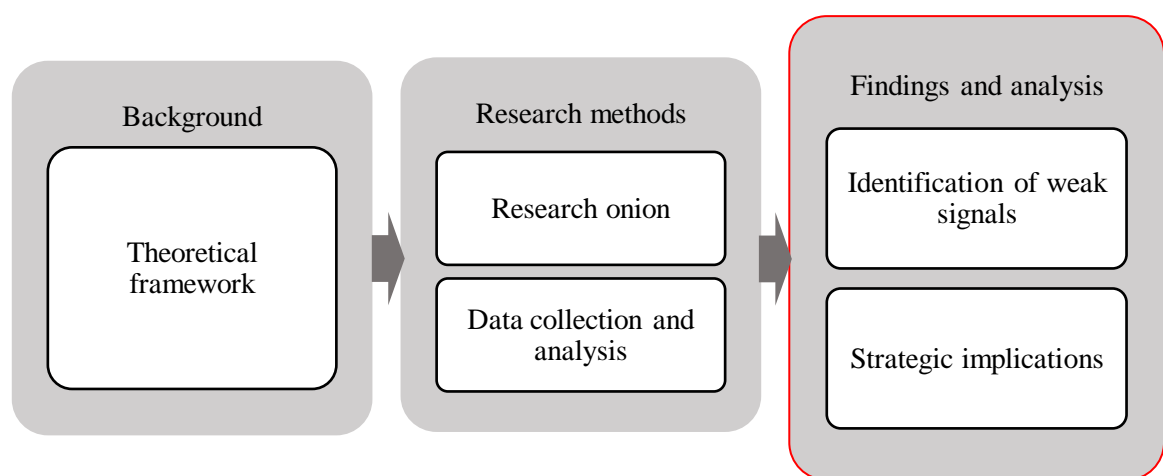


Figure 9: Phase of the paper: Findings and analysis

Four main themes could be identified from the material collected in the interviews: **Tools of competition, Impact of technology, Gen-Z, and work polarization**. In addition, several more specific code groups were divided under the main themes.

4.1 Tools of competition

The first theme is tools for competition. Tools of competition includes two subgroups: Customers and employees. In the Customers group, tools of competition include the means of competition and factors that influence the decision of customer companies in choosing an HR consulting company. The Employees group, on the other hand, includes the factors that affect the competition for labor and the employees' choice of workplace.

4.1.1 Customers

In the interviews, four main factors that influence the decision of the customer companies appeared: price, services, experience and availability. It should be noted that several HR consulting companies can serve the same clients. As a result, HR companies compete for individual deals with existing customers as well, and the winner of the deal may vary considerably depending on the needs of the customer company.

As in many industries, price is important when choosing an HR company or service offer. However, the importance of price varies among different customers. Some of the client companies consider price to be the most relevant factor for their decision, while others place weight on other factors as well. The price here refers to the price of the service provided by the HR company, and not the employee's salary.

The importance of services appeared in most of the interviews. Especially with regard to digital services and mobile applications, the expectations of customer companies have risen. Interestingly, a mobile application is not yet generally considered necessary, but the benefits it brings are recognized. The users want to get up-to-date information about the availability and need of personnel in the company's various functions through the application. However, mobile applications are not seen as key factor in customer negotiations. Technological requirements are discussed in more detail in section 5.2.3. Various customized services that exactly meet the customer's needs are also relevant in tenders. Customers want service packages that they consider most beneficial to their business. In addition, the interviewees do not expect the applications to eliminate the need for human-to-human customer service, as many customers find it valuable and necessary.

“They can book shifts from there (the mobile applications) and see the situation live in time. In certain situations, they might be able to catch up more on what the situation is at that moment in, for example, the logistics center, and what it looks like 2 days ahead.” (Key Account Manager)

The third important factor for client companies is the HR company's experience with the job title for which employees or workers are being sought. Client companies consider it important that the HR company has previous experience and references from similar searches. This is especially emphasized in such tasks that require competences that are difficult to find or that are vital to the client company. However, the challenge of bringing up the references enough, and on the other hand finding a suitable person from the company's internal resources to handle the offer in question, was highlighted as a bigger problem than the actual lack of experience.

The fourth factor affecting competition from a customer perspective is the availability of employees. In intensely competed markets, fast response time is important. The interviews revealed that, along with other factors, client companies usually choose the offer of the HR company that has a suitable employee available immediately or faster than others. Therefore, a large talent pool with employees quickly available for various needs is a significant competitive advantage.

4.1.2 Employees

Four factors affecting employees' choice of workplace were identified in the interviews: salary, employer brand, employment benefits and number of shifts. Due to the labor shortage, these factors have become particularly relevant as companies have to compete more vigorously for employees.

Similar to price of the service to customer companies, a significant factor for employees in choosing a workplace is salary. Although collective agreements guide wages in many fields, there can be differences in wages between employers for the same position. In the HR consulting industry, the phenomenon is particularly interesting, as several HR companies may offer exactly the same position. The interviews showed that especially in blue collar jobs (i.e. working class or manual labor), even a small salary difference can determine the

employee's choice of job. In white collar jobs (office, management, administration), on the other hand, other factors increase in importance, and a small salary difference does not have as much weight.

The employer brand is especially important for people applying for white collar jobs. The reputation of the employer, the work tasks and well-being of the employees are important factors in attracting employees. As mentioned earlier, a wage difference of tens of euros does not matter as much to white collar people as it does for blue collar employees. However, this only applies to small salary differences, and if the differences are hundreds of euros, other factors become less relevant.

“The employer brand is more important on the white-collar side. The salary increase of twenty-somethings may not be so relevant anymore, but then the employer's reputation and perhaps more diverse and challenging tasks are important.” (Senior HR Consultant)

Employee benefits were emphasized in the interviews as a valuable matter in the competition for employees. According to the interviewees, employment benefits have grown in importance considerably in recent years. In addition, it emerged that many employers still invest insufficiently in employee benefits, or do not bring them sufficiently to the attention of job seekers.

Employee benefits vary considerably among those employed through HR companies. In some companies, the employer (earlier referred to as customers for HR companies) offers temporary employees (people who have an employment contract with HR companies) the same employee benefits as their own employees, while in some cases those employed through an HR company are only allowed to use the employment benefits offered by their HR company. There are also differences in employee benefits between different HR companies. Consequently, the employee's choice of workplace is affected by the differences in employment benefits between not only staffing companies, but also employers. Employee benefits may also be seen as a discriminating factor: Not being allowed to participate in the

employer's seasonal parties, or being left without a bonus that is paid to the employer's own employees, reduces the employee's will to work.

Employers also have room for improvement when it comes to employment benefits. According to the interviewees, people's well-being and health have been in the spotlight for a long time, but employers are lagging behind in this regard. With the growing competition for employees, and the blurring line between work and free time, employers have to find new ways to attract employees. Many companies see employment benefits as a secondary matter, which has not received much attention in corporate communications. In part, this may be due to differences between generations, as for someone an insignificant factor such as a gym benefit is decisive in choosing a job for another. The interviewees also emphasized the importance of employee well-being, freedoms and employment benefits in terms of the company's success. An employee that is both physically and mentally well, is likely to be an efficient and motivated employee for the company.

“Human well-being as a trend is nothing new, it's been around for a long time, but maybe employers could bring out that kind of “lifestyle” experience more. To tell how they give many kinds of freedoms, rights and opportunities.” (Key Account Manager)

Finally, the fourth factor that affects an employee's choice of workplace is the number of shifts. Those employed through HR companies are not always offered a contract with a regular number of working hours, but employees are invited to work as needed. According to the interviews, especially at the beginning of the employment relationship, only a small number of shifts can be guaranteed. If the employees do not get enough shifts quickly enough, they apply for other jobs.

4.2 Impact of technology

The second theme is the impact of technology. The sub-groups include Artificial Intelligence (AI), Platform economy, digital technologies and the need for labour. In addition, there are several more specific code groups under these.

4.2.1 Artificial intelligence

Although Artificial Intelligence has received extensive media attention, its utilization in the HR field is still at a rudimentary level. Opinions in the interviews were divided regarding the topic, which may be partly influenced by the amount of knowledge each interviewee has on the subject. None of the interviewees had personally encountered or used artificial intelligence in their work. Some of the interviewees felt that it is not yet possible to produce sufficiently detailed or high-quality outputs using AI to use them in job applications or job advertisements. However, some of the interviewees recognized the possibility of using language models by both applicants and HR companies. Language models are a form of AI that utilize large amounts of data to produce text according to commands and conditions given by the user.

“Maybe for some quick information search or summarizing it could work, but I haven't thought of it myself, and I haven't come across that it would be used in this field.” (Account manager)

Artificial intelligence is believed to have potential benefits in the HR industry for both applicants and companies. HR companies and employers can use artificial intelligence and especially language models to speed up the creation of job advertisements and reduce the need for manual human labor. In addition, job advertisements can be optimized for certain groups of people, companies and industries based on data. Although artificial intelligence is not considered ready to create complete job advertisements, it is perceived as a potential aid in the creation of text.

“You can edit it afterwards so that it looks like you actually wrote the text yourself. It gives a really good foundation and then some terms or sophisticated words that one wouldn't have to come up with to use themselves, which is a really big help. (Employee Relations Specialist)

Job seekers are also believed to be able to use artificial intelligence in creating the text for applications. The applications produced by the language model can be personalized afterwards, which makes it more difficult to separate them from self-written applications. In addition, it is possible to emphasize certain subject areas in applications using AI, which increases the chance of being invited for an interview. Applicants using artificial intelligence is seen as a potential threat as well, as this may lead to the homogenization of applications. As a result, there will be more work for interviews to separate potential applicants.

4.2.2 Platform Economy

The Platform Economy sub-group refers to the emergence of new forms of employment relationships in the labor market. Two sub-groups were identified under the Platform Economy theme: Light entrepreneurship and factors that resist change. The interviews highlighted the increasing need for new forms of employment instead of the traditional employment relationship or entrepreneurship, however, factors that slow down the development were also identified.

Light entrepreneurship is a form of employment where a person employs themselves, but uses external operators for invoicing and other functions, without establishing their own legal company. According to the interviewees, there are light entrepreneurs especially in the construction industry, in sales positions and in the restaurant industry. It should be noted, that the services of the case company do not include light entrepreneurship. Some customers have expressed their interest in hiring light entrepreneurs through HR companies, and on the employee side many see light entrepreneurship as a potential and attractive option. Light entrepreneurship is seen as a possible alleviation to the labor shortage in some sectors, as the same persons can be employed simultaneously in several companies in fields where there is a shortage of professionals. However, some companies emphasize the large number of

employees instead of the skills of individuals, which makes individual light entrepreneurs unattractive to them. Moreover, the responsibilities such as marketing and acquiring customers, and unemployment security and sickness benefit, which is weaker than in traditional employment, reduce the attractiveness of light entrepreneurship for employees.

“I have clearly noticed that there are much more questions about whether it would be possible to work as an entrepreneur, even in basic jobs. People would like flexibility in the forms of the employment relationship.” (Senior HR Consultant)

Platform work is currently not considered either a threat or an opportunity in the HR industry. According to the interviewees, many clients of HR companies operate in areas where the modern forms of employment of platform companies are not possible. On the contrary, platform-work is even considered a discriminatory activity, because the rights of such persons as employees are often not realized as required by law. The interviewees mentioned that problems such as not checking the background of employees regarding work permits, as well as too low salaries are common in platform companies. This also puts fair employers at a competitive disadvantage.

4.2.3 Digital technologies

Topics that relate to the technological expectations of employers towards their HR company, and the expectations of employees towards both employers and HR-companies were placed in the Digital Technologies group. With the development of technology and systems that make work easier, the requirements have increased.

As mentioned in section 5.1.1, the advantages of mobile applications have been recognized in the HR industry, but these are not yet required as part of the service. For other systems, the assumption already is that everything is in digital form, and paper systems are no longer used. Mobile applications are wanted to replace systems that are based on browsers or that

require a computer, making work faster and more efficient. Some of the customer companies' wishes for mobile applications are listed in table 8.

Table 7: Requirements for mobile applications

Companies' requirements for applications
Ease of use, learning the system should be effortless and the application should not require additional effort.
Increased autonomy and reduced need to be in contact with the HR company via e-mail and phone calls.
Real-time monitoring of labor need and availability in the company's different units.
The ability to see free employees and select people for work shifts through the application
The integration of different systems into one system, and automatic transfer of data to the information systems of the client company and the HR company

Some of the employees' demands are related to the HR company's mobile applications, but in addition to this, the employees have demands towards the employer's (the HR company's client) systems. Employees representing young generations in particular want a mobile application for recording working hours, while for older generations the matter is not as important. In addition, some employees would like to be able to book work opportunities through mobile applications, instead of arranging them over the phone or messages. According to the interviewees, employees are also often interested in the customer company's systems. At work, employees want to use new and well-functioning systems so that work is efficient and pleasant.

4.2.4 Labour shortage

As mentioned earlier, Labor shortage is a big phenomenon in the labor market. The following paragraphs discuss how the impact of platforms, automation, labor-based immigration and company requirements affect the labor shortage.

One factor possibly influencing the labor shortage is the increase in platform work. Especially in urban areas, platform companies employ a lot of people of working age, which may be visible in other sectors as an increasing difficulty in finding employees. According to the interviews, platform work may affect finding restaurant and sanitation staff in particular. However, the impact of platform-work on labor availability was not highlighted in the majority of interviews.

The interviews also attempted to find out whether companies are trying to fight the labor shortage by increasing the automation of their operations. The interviews showed that in Finland, especially in the logistics sector, several warehouses have been automated. Automation has slightly reduced the need for warehouse workers employed through HR companies, but has not completely eliminated it. Automation and technology have made it easier for employees to work, as manual work such as lifting has decreased with the help of machines. In some functions, such as checking the quality and integrity of goods, human labor is still required. Automation has also been slowed down by the high cost of robotic systems. Large and stable companies have been able to invest in automation, but smaller companies rely on human workers.

Work-based immigration is a current topic in the media, and it is considered an effective way to combat the labor shortage. However, work-related immigration is slowed down by four factors: Finland's unattractiveness, language barriers, legislation and cultural counterforces.

According to the interviewees, Finland is not an attractive country to work in the eyes of many foreigners. As the labor shortage is also a phenomenon in some other European countries, the competition for work-related immigration is not only between companies, but also between countries. Finland's wage competitiveness is no longer sufficient, so we have to look for workers further afield than before. In addition, the country's remote location reduces its attractiveness alongside many other countries.

“We may not be able to attract skilled people anymore. In the past, it was possible to find welders and CC machinists in the Slovakia-Poland sector, but they no longer want to come from there, so then we have to go to third world countries.” (Account Manager)

Work-related immigration is also opposed by the challenges posed by language barriers. Many companies in Finland require their employees to speak Finnish, and knowing English is not necessarily enough for an employee. There may be persons in supervisory positions who only speak Finnish, and consequently Finnish language is required of new employees to enable communication. According to the interviews, the problem is especially prominent in smaller towns.

It was also found in the interviews, that Finnish legislation slows down labor-based immigration. Obtaining work permits is slow, and some people who are in working age wait for a decision for long periods of time outside of working life. There are restrictions and obligations for workforce coming from outside Europe, which increase the workload for the HR company. In some professional categories, a residence permit also requires a minimum income, which may be considerably high in relation to the position.

The attitude of companies towards work-based immigration, which is referred to here as cultural counterforces, may also be negative, in which case employees with a foreign background are not hired. According to the interviews, work-based immigration may be opposed due to discriminatory motives, but in some sectors it is connected to the fear of lowering salary level and the weakening of the prestige of the profession. The requirements for employees presented by the HR company have also changed, and some managers have set strict orders regarding the background of the employees they want.

The fourth major factor identified in the interviews influencing the labour shortage is the requirements of companies. The interviews showed that the high standards of companies and the change in the skills required from the workforce increase the labour shortage. Meeting

the demand and supply of labour has become more challenging partly as a result of companies' actions.

The companies' high standards regarding the workforce weaken the chances of finding suitable employees. According to the interviewees, some companies' understanding of the labor market situation is not up-to-date, and they are not flexible enough with their requirements. The situation on the labor market has changed rapidly in some sectors, and employees are not applying for some positions as before. Some companies only look for young employees with the idea of long employment relationship, however, it is difficult to find young applicants in some fields, and it is easier to find more aged employees. In addition, the interviews highlighted the need for companies to consider their own attractiveness as an employer, if the number of applicants has dropped significantly.

There has been a change in the skills required of employees, which partly explains the labour shortage. As a result of automation, robotization and technological development, the skills companies need have changed. As manual work is replaced by other solutions, technical education and know-how are needed for equipment maintenance, repair and monitoring. In addition to industrial sectors, employees in service sectors are also required to have IT skills, which excludes some applicants. With the increase in technological and IT competence requirements, the attractiveness of young employees has increased in the labour market.

As it is challenging to find directly suitable employees in some fields, and some of the requirements are not flexible, alternative solutions must be used to fill the positions. Retraining or reskilling existing employees or applicants, that are directly incompetent but potential, has also been proposed as a possible solution to labour shortage.

4.3 Gen-Z

The third identified theme is Gen-Z, which refers to the generation born between the mid-1990s and early 2010s. In the interviews, it was emphasized that the young generation has a

considerable influence on the transformation of the labour market. Therefore, four sub-groups were placed under the Gen-Z theme: accelerating labour market, decreasing age of work-life entrants, issues, and underlying causes of issues.

4.3.1 Accelerating labour market

The interviews revealed that the labour market is accelerating, especially regarding Gen-Z. The job seekers' interest in the workplace may change quickly, and the employment situation with the best applicants may change in a short time. As a result, companies must react quickly in the application process in order to get access to the best talent.

“A typical example is that our client company offers position x and they expect a lot of applications, and then we narrow down the best of them and then when there are maybe 5 of the best left, everyone wants to get in. In reality, young people might be just looking at this option, and are not interested anymore when it becomes concrete.” (Key Account Manager)

According to the interviewees, the growth of young people's confidence in their own competence is part of the reason for the phenomenon. In addition, the growing popularity of entrepreneurship among young people has increased employment options. However, the acceleration of the labour market is particularly visible in the educated sectors.

In addition to the acceleration of the labour market, growing employee turnover is highlighted in Gen-Z according to the interviews. Employment relationships are getting shorter, and especially young people are no longer looking to work in the same company for decades. Employees also desire variety from work, and the company must have clear prospects for the employee's career development. Young employees want to develop and expand their own skills, and emphasize what the workplace has to offer for their future.

It also appeared that companies may contribute to the turnover rate of employees. According to some of the interviewees, there have been an increasing number of cases in companies

where the employment relationship has been terminated at the very beginning after a short consideration. However, the education level and job position of the employees have an impact on the matter, and early termination of the employment relationship is more common in blue-collar jobs with low background requirements for the employees.

4.3.2 Decreasing age of work-life entrants

An interesting phenomenon under the theme of Gen-Z is the decreasing age of work-life entrants. According to the interviewees, a considerable number of people who have just reached the age of majority have started working. The situation has changed in the last 2-3 years, and the number of 18-year-old employees has been smaller before. Many of the employees have just graduated from vocational school or high school. The matter may be partly explained by the industries of the case company's customers, where some of the jobs require low education, and which are suitable for young people. In addition, the interviews showed that many young employees plan to apply for further education after some years of working.

4.3.3 Issues

The third identified sub-group under the theme Gen-Z is the issues that relate to the generation. The interviews revealed that the transition of the new generation to working life has brought new challenges to employers and HR companies. Problems include concentration difficulties, increasing salary requirements, psychological issues, sickleaves, and new priorities.

Concentration difficulties are a prominent issue among the employees who represent Gen-Z. According to the interviewees, it is common that simple orientations have to be held for the same person up to three times, while this does not happen with older persons. Young employees may forget what they are trained in quickly, which increases the workload of both the employer and the HR company. Particularly, many employees are not interested in

learning systems that are not directly related to work, such as the accounting system for working hours. The problem is caused especially by the inability to concentrate and internalize what is taught in the orientations. The interviews also revealed that many young people are not aware of the norms of working life, such as how to behave in the workplace, and what is allowed during working hours. Consequently, a common cause of concentration difficulties is excessive smartphone use. Especially if the workplace allows little use of smartphones, such as listening to music, many employees are easily distracted to use the phone for other matters as well.

“The employees have asked whether it would be possible to get a better salary. The reasons are usually, that they have to pay rent, fuel, etc., and that other expenses have risen. And then they don't accept the job as it is, but are rather without a job than accept a job with a slightly lower salary.” (Employee Relations Specialist)

While the quality of work has declined, the salary expectations of young employees have grown compared to previous generations. According to the interviewees, entry-level employees may demand a starting salary that is even higher than the industry's average salary. Moreover, especially in fields with low education, it is common for recent graduates to have a wrong perception of the salary level in working life, and they are disappointed with the salary offered by the employer. The interviewees estimated that salary expectations may have increased due to increased spending habits and living costs. In addition, the availability of job-specific median and average salary information online may have increased applicants' expectations regarding salary. At worst, some employees have chosen to remain unemployed instead of working at a starting salary lower than desired.

Based on interviews, employees' psychological issues have grown significantly, especially among Gen-Z employees. People seek occupational health care more than before because of their ability to cope and their mental health. According to the interviewees, the reason may be the lowering of the threshold for seeking help and the weakening of coping skills. Remote working may also influence the alienation of employees, which can lead to the emergence

of mental health problems. The weakening of motivation to work was also suspected to have an impact on requesting sick leave based on mental health.

In relation to mental health problems, the number of sick leaves in general has increased among employees. Early support discussions, which aim to prevent the occurrence of problems limiting the employee's ability to work, have also been held significantly more than before. The problem does not only concern Gen-Z, but all employees regardless of age group. According to the interviewees, since the corona crisis, employees have been more prone to sick leave than before, and the situation shows no signs of recovery yet. In some cases, workplace requirements to stay home in case of illness have become stricter. However, sick leave is also requested for smaller reasons than before, and employees no longer work with limited ability as often as previously. There are also new reasons for sick leave that used to be rare. In one interview, it was revealed that the number of migraines, especially among young people, has increased considerably. According to the interviewee, even every third or every fourth sick leave is due to migraine, while 10 years ago this was uncommon.

Gen-Z has new priorities in the relationship between work and civil life. They want flexibility in their work, but on the other hand, they are not ready to flex according to the employer's demands as much as before. The possibility of working remotely has become an important criterion when choosing a job, and people want to work from home several days a week. In addition, hobbies have grown in importance, and are high in the order of priorities. Young people may take time off from working life to pursue other things. Predictability is desired from work, so that it is possible to organize freetime plans, partly for one's own projects or hobbies. Moreover, leading young people is also different from before. Soft values have grown in importance, and people do not want to be in a workplace based on fear or micromanagement.

4.3.4 Underlying causes of issues

There are various new issues with Gen-Z employees that affect not only employers but also HR companies. The interviews also sought to find out the reasons behind the problems, and what can be done to solve them. The underlying causes of the problems were estimated to be related to social media, the school system, the availability of labour and the treatment of employees.

According to the interviewees, schools do not adequately prepare young people for working life. Basic working life skills such as behavior in interview situations or on the phone, making a resume and following working hours are challenging for many young people. The level of requirements set by schools also does not correspond to jobs, which causes problems when transitioning to working life. Moreover, employees' challenges in working life can also be partially explained by the labor shortage. Due to the labor shortage, people who are not ideally suited are hired for some positions, which causes some of the problems. The treatment of employees can also have an impact on the emergence of problems at work. According to some interviewees, bad or unfair treatment of colleagues and unequally distributed employment benefits have a negative effect on work motivation.

4.4 Work polarization

The fourth theme identified from the interviews is work polarization, which as a concept was explained in theory section. Work polarization was divided in three sub-groups: Unattractive jobs, Attractive jobs and inheritance of work.

4.4.1 Unattractive jobs

The interviews revealed that the labour market is strongly divided into unattractive and attractive jobs. Unattractive jobs have common characteristics, and it is challenging to find employees for them. In some workplaces, the situation has changed quickly, and finding

employees is challenging. Although work polarization is highlighted among Gen-Z employees, it also affects older generations.

The polarization of work is especially noticeable in low-paid jobs that do not require much education. The number of applicants has decreased significantly in some jobs only in the last two to three years, although there used to be large numbers of applicants in the past. Shift work, outside work and many physical jobs, such as assembly work, installation work, cleaning work, construction work and some customer service jobs and jobs that require a lot of talking on the phone are avoided by most applicants. Furthermore, if the transport connections to the workplace are poor and the salary level is not high, it is difficult to attract applicants.

“We have received feedback from customers that they want clearly younger people, maybe the reason is that they have been working there for a really long time, they all have long careers, and that problem is starting to show in the fact that they are starting to retire one by one. They would like younger people to work there, who have physical strength. But they may not see that young people don't necessarily want to go there because there are no opportunities for self-development or career paths.” (Account Manager)

The name of the job can also have an impact on its attractiveness. According to the interviewees, job seekers often have prejudices about jobs. If the job seeker has heard some negative information related to the job title or field, it is challenging to change the perception of the job, even if the job offered is suitable for the applicant. Even applicants looking for a temporary job, such as young people taking a gap year from their studies, are critical about the job they accept.

4.4.2 Attractive jobs

While there are jobs that are unattractive to most applicants, some jobs receive large numbers of applicants. Jobs that can be done inside, with regular shifts or working times, almost always get applicants. Logistics jobs are also seen as attractive, although many other physical

jobs are not. According to the interviewees, the popularity of the logistics industry may be explained by the high basic salary of the industry compared to other similar industries. In general, jobs where the pay is higher than other comparable jobs, the working hours and shifts are regular and predictable, or the work does not require physical effort or being outside, are attractive to applicants. In highly educated or white-collar jobs, work polarization is not similarly noticeable.

4.4.3 Inheritance of work

In the interviews, a concerning phenomenon that is related to the polarization of work came up. According to the interviewees, the family background of young job seekers has an effect on the type of job they apply for. Young people whose parents work in an office or work remotely are more likely to apply for similar jobs themselves. On the other hand, similarly, young people whose parents do shift work, work outside or are in low-paid jobs, probably end up in similar positions. As a result, the polarization of work becomes stronger and the labour shortage in unattractive fields becomes more severe. The interviewees were concerned, that in the worst case, inheritance of work could contribute to the creation of a class society.

4.5 Consolidated findings

In this sub-section, the findings of the study are shown summarized from themes and codes into recognizable phenomena based on their common features.

Table 8: Consolidated findings

Findings Theme	Sub level Finding
Tools of competition: Employees	Increasing criticality of employees <ul style="list-style-type: none"> • Growing importance of employer brand Growing importance of employment benefits
Impact of technology: AI	Use of AI <ul style="list-style-type: none"> • Use of AI in job applications and resumes

	<ul style="list-style-type: none"> • Applicants become more homogenous • Streamlining of operations with the help of artificial intelligence-based solutions • Utilization of artificial intelligence tools in the work of both consultants and salespeople • Text production using language models <p>The need to train personnel in the use of artificial intelligence tools</p>
Impact of technology: platform economy	<p>New forms of employment</p> <ul style="list-style-type: none"> • The need for new, flexible forms of employment • Employees look for alternatives to temporary work and permanent employment <p>light entrepreneurship, platform work</p>
Impact of technology: Digital technologies; Tools of competition: Customers	<p>Further emphasis on employee and user experience in digital tools</p> <ul style="list-style-type: none"> • Shift from browser- and computer-based programs to mobile applications • The existence of digital tools is no longer enough, the user experience is becoming more valuable <p>The growing importance of mobile applications</p> <ul style="list-style-type: none"> • Reduced need for the assistance of HR company employees • Increased independence of customers • Growing importance of user experience <p>Automated data collection</p>
Impact of technology: Labour shortage; Work polarization: Unattractive jobs, attractive jobs	<p>Increasing difficulty to attract foreign employees</p> <ul style="list-style-type: none"> • Unattractiveness of Finland • Wage competitiveness <p>Change in skills and training required of employees</p> <ul style="list-style-type: none"> • Requirement for digital skills regardless of job • A change from manual work with low training to an increasing need in the maintenance and supervision of automation and robotic equipment <p>The need for companies to change their employee standards</p> <ul style="list-style-type: none"> • Overcoming the language barriers • Worsening of the labor shortage in companies that are not flexible in their demands towards their employees <p>Work polarization</p>
Gen-Z: Issues, Accelerating labour market; Tools of competition: Employees	<p>The growing need to solve problems related to young people's ability to work</p> <ul style="list-style-type: none"> • Concentration difficulties • Psychological issues • Sickleaves <p>The need to invest in the ability to attract and engage employees</p> <ul style="list-style-type: none"> • Increasing employee turnover rate <p>Significance of employer branding</p>
Gen-Z: Issues, underlying causes of issues	<p>Balancing work life and free time (Gen-Z)</p> <ul style="list-style-type: none"> • New priorities • Increasing salary requirements <p>Balancing company operations and employees' individual needs</p>

Table 9 shows the common phenomena identified in the findings from different themes. In the next section, the findings are examined from the perspective of employees, and then from the perspective of employers, placing these in their evolutionary stages.

5 Discussion

The previous paragraphs presented the findings from the data collected through expert interviews. In this paragraph, the findings are used to answer the sub-research questions of this study. In addition, the theories and literature presented in the background section are analysed in relation to this study. It should be noted that the purpose of this research is to develop potential future scenarios based on the collected data, as well as to evaluate strategic responses to prepare for these from a business perspective. In reality, some of the future scenarios may change significantly from the estimate, and some may not materialize at all. However, preparing for different scenarios is an effective way to increase a company's strategic resilience (Manning & Soon, 2016; Porter, 1980).

SQ1 What emerging factors are affecting people's choice of work?

The first sub-research question concerns the perspective of employees and job seekers in the transforming labor market. Although the collected data showed several current changes in the behavior of job seekers and employees, many observed events have reached the level of a strong signal or trend. Therefore, the research findings are placed in a table to facilitate their evaluation, and to identify the weak signals.

Table 9: Evolutionary stage of issues from employee perspective

Findings Theme	Sub Finding	Stage of evolution
Tools of competition: Employees	Increasing criticality of employees <ul style="list-style-type: none"> • Growing importance of employer brand • Growing importance of employment benefits 	Trend
Impact of technology: AI	Use of AI <ul style="list-style-type: none"> • Use of AI in job applications and resumes • Applicants become more homogenous 	Weak signal/Strong signal

Impact of technology: platform economy	New forms of employment <ul style="list-style-type: none"> • The need for new, flexible forms of employment • light entrepreneurship, platform work 	Trend
Impact of technology: Digital technologies; Tools of competition: Customers	Further emphasis on employee and user experience in digital tools <ul style="list-style-type: none"> • Shift from browser- and computer-based programs to mobile applications • The existence of digital tools is no longer enough, the user experience is becoming more valuable 	Weak signal
Impact of technology: Labour shortage; Work polarization: Unattractive jobs, attractive jobs	Increasing difficulty to attract foreign employees <ul style="list-style-type: none"> • Unattractiveness of Finland • Wage competitiveness 	Strong signal
Gen-Z: Issues, Accelerating labour market; Tools of competition: Employees	The growing need to solve problems related to young people's ability to work <ul style="list-style-type: none"> • Concentration difficulties • Psychological issues • Sickleaves 	Strong signal
Gen-Z: Issues, underlying causes of issues	Balancing work life and free time (Gen-Z) <ul style="list-style-type: none"> • New priorities • Increasing salary requirements 	Weak signal

In the theme tools of competition (section 5.1), four subgroups were identified: salary, employer brand, employment benefits and number of shifts. While most of these factors have been present in the labor market for a long time, the growing importance of the employer brand and employee benefits is a relatively recent phenomenon. These may be the result of selectivity due to the large supply of jobs, and their meaning may change as the labor market situation develops. The finding aligns with Ronda, Valor & Abril (2018), who highlighted the growing importance of employee benefits and employer branding in attracting employees. The increasing criticality of employees cannot be defined as a weak signal, because it is a large-scale phenomenon that has grown past its initial stage. In addition, the phenomenon is already occurring, and will probably grow in importance as Gen-Z becomes

more common in the labor market. Therefore, it could be set either as a strong signal or a trend, or in an intermediate phase between them.

The increasing use of artificial intelligence was identified in subsection 5.2.1 as an emerging phenomenon that has not yet received widespread attention. Some previous studies have been conducted on the use of AI by recruiters (van Esch, Black, Arli (2021); Malik, Budhwar, Mohan & N.R. (2023), but little research has been done on the use of AI by job seekers. The interviewees' opinions and knowledge on the topic were divided, and therefore, it can be considered to be at a relatively early development level. Consequently, although difficult to assess, use of AI by job applicants can be set as either a weak signal or a strong signal. It is expected that the use of artificial intelligence will increase in both job applications and merit lists, as well as possibly in other contexts related to the job search. As a result, separating the applicants from each other becomes more challenging, as estimated in section 5.2.1.

New forms of employment, which was examined in sub-section 5.2.2, is a widespread and current phenomenon that can be considered a trend. Employees and job seekers desire wider options for employment relationships, and it is likely that the importance of the issue will increase in the future. This is supported by the growing demand for light entrepreneurship, as identified in the interviews, and the popularity of platform work. Moreover, the characteristics of generation z such as individualism, growing demands for jobs and "new priorities" which was explained in section 5.3.3, likely increase the need for alternative and more flexible forms of employment. This is also supported by Rodriguez, Ardoin & Landberg (2021), who examined these issues specifically in relation to Gen-Z. The competition between traditional employment relationships and modern alternatives such as platform working is already underway, which was also reflected in the interviews in the impact of platform companies on labor shortage (sub-section 5.2.4).

Digitalization has previously appeared as a transition to the use of digital systems. It is possible that digitalization is reaching the next level, as the requirements for systems are shifting towards mobile-based applications. As found in the interviews, the use of digital

systems is self-evident in the industry, and the user experience is becoming more valuable than before as generation Z moves into working life. The systems are wanted to be quick and easy to use, and it is possible that mobile systems will become an important means of competition for HR companies in the future. Moreover, data collection and dealing with Gen-Z's problems can be possible with the help of mobile applications. With mobile applications, for example, it is possible to monitor an employee's screen time during working hours, and using simple applications may increase the activity of employees in learning the systems. While there are few studies on the subject, the finding is supported by Raia (2017), according to which the digital experience for employees has an effect on efficiency, motivation and work atmosphere.

Based on interviews, attracting foreign employees has become more challenging in recent years. Moreover, the limits set by companies for their employees, such as language proficiency requirements and "cultural counterforces" as referred to in sub-section 5.2.4, may make work-based immigration even more difficult. There are no academic studies on the subject, but Finland's country image has been largely featured in the media (Pelli, 2022), and in addition, the Finnish Ministry of Foreign Affairs has campaigns to develop the country image (Ulkomministeriö, 2023). A research by Taloustutkimus also concluded that Finnish employers are poorly prepared for hiring foreign labor (Barona, 2021). The increasing difficulty to attract foreign employees is a relatively broad and significant phenomenon that can be considered a strong signal.

As the interviews indicated, the young people's declining ability to work is a growing concern. Concentration difficulties, psychological problems and increasing sick leave are issues, solving of which requires cooperation from both HR companies and their customers. In an extensive study by the Finnish Institute of Occupational Health (Kaltainen & Hakanen, 2023), it was concluded that especially young people's ability to work has decreased after the corona pandemic, which is in line with the results of this research. Issues related to young people's work are already widely visible, and therefore they are past the weak signal stage. The phenomenon has almost reached the level of a trend, but with the current frequency of occurrence it can be considered a strong signal.

The study found that for Gen-Z employees, besides work, their own activities and hobbies are particularly important. The flexibility of the workplace and support in achieving one's own goals not directly related to work is becoming an important criterion in choosing a workplace. The growing importance of free time and personal interests may also be connected to growing wage demands, which aim to enable balance between the individual's economy and the time spent at work. The finding is supported by Stansell (2019), who found that Gen-Z has different preferences in comparison to previous generations regarding factors such as flexibility and employee benefits. The phenomenon appeared in some interviews, but it has not yet reached widespread significance. Therefore, it can be considered to be in the transitional phase between a weak signal and a strong signal.

SQ2: What phenomena are emerging as important influencers between HR companies and customers?

The second sub-research question concerns the changing needs of client companies towards HR companies. Table 10 shows the research findings and the evolutionary stage of each phenomenon, and the following paragraphs provide further explanation on the contents to answer the sub-research question.

Table 10: Evolutionary stage of issues from employer perspective

Findings theme	Finding	Stage of evolution
Impact of technology: AI	Use of AI in professional contexts <ul style="list-style-type: none"> • Streamlining of operations with the help of artificial intelligence-based solutions • Utilization of artificial intelligence tools in the work of both consultants and salespeople • Text production using language models • The need to train personnel in the use of artificial intelligence tools 	Weak signal

Impact of technology: platform economy	New forms of employment <ul style="list-style-type: none"> • In addition to temporary work and permanent employment, other options are wanted 	Strong signal
Impact of technology: Digital technologies; Tools of competition: Customers	The growing importance of mobile applications <ul style="list-style-type: none"> • Reduced need for the assistance of HR company employees • Increased independence of customers • Growing importance of user experience • Automated data collection 	Strong signal
Impact of technology: Labour shortage	Change in skills and training required of employees <ul style="list-style-type: none"> • Requirement for digital skills regardless of job • A change from manual work with low training to an increasing need in the maintenance and supervision of automation and robotic equipment 	Trend
Work polarization: Unattractive jobs, attractive jobs	The need for companies to change their employee standards <ul style="list-style-type: none"> • Overcoming the language barriers • Worsening of the labor shortage in companies that are not flexible in their demands towards their employees • Work polarization 	Strong signal
Gen-Z: Issues, Accelerating labour market; Tools of competition: Employees	The need to invest in the ability to attract and engage employees <ul style="list-style-type: none"> • Increasing employee turnover rate • Significance of employer branding 	Trend
Gen-Z: Issues, underlying causes of issues	Realization of Gen-Z related issues <ul style="list-style-type: none"> • The need to solve challenges related to concentration, psychological problems and sick leaves • Balancing company operations and employees' individual needs 	Strong signal

The factors identified in the theme tools of competition were expectable in the target industry. It is challenging to assess the stage of evolution for the importance of the price or quality of services, the experience of the HR company or the availability of employees, as these can be thought to have been significant in the past and remain so in the future. In other words, the factors in question are not trends, but long-term means of competition specific to the industry, and are therefore not included in table 11.

As with applicants, the increasing use of artificial intelligence is likely to change employment processes significantly as well. The interviews showed that the use of artificial intelligence by employers and HR companies has not become common. Nevertheless, as explained in section 5.2.1, several opportunities are seen for the use of artificial intelligence by professionals. The findings of this study are supported by Blumin & Cepellos (2023), as shown in table 11, it is likely that recruitment activities will be streamlined with solutions based on artificial intelligence. In addition, the need for manual process work is reduced when text production and applicant evaluations can be partially automated. However, this will also raise the need to train personnel in the use of artificial intelligence tools, as estimated in Gangoda, Krasley & Cobb (2022) and Švarc and Dabić (2021). Since artificial intelligence is still an emerging phenomenon and used by few professionals in the HR field, use of AI in professional contexts can be considered a weak signal.

The changing needs of applicants and employers show the need for new forms of employment. As revealed in the interviews, employers have already requested the possibility of hiring light entrepreneurs. Moreover, the strong growth and increasing number of platform companies also support the forecast, as found in Švarc and Dabić (2021) and Chen, Liu & Wang (2020). It is possible that companies' demand towards their HR companies for alternative forms of employment will also increase as the number of Gen-Z employees increases in the labor market. The transformation of the labor market is strongly underway, and new forms of employment relationships are an essential part of the phenomenon. Therefore, new forms of employment can be considered a strong signal.

As mentioned earlier, the need for mobile applications has become more prominent alongside traditional digital service solutions. Customers of HR companies have also recognized the advantages of applications, and mobile applications may become a significant means of competition in the future. Table 11 shows that mobile applications can not only reduce the workload of the HR company, but also increase the independence of customers and improve data collection possibilities. As identified by Kim, Baker & Ma (2023), internal business mobile applications can significantly improve business performance, which may explain the growing interest in them. The phenomenon can be considered a strong signal, because while mobile applications are important to customers, they are not yet a prerequisite for cooperation.

Based on the interviews, automation and robotics do not radically reduce the need for employees, which is contrary to Švarc and Dabić's (2021) estimates. However, the increasing use of digital technologies, artificial intelligence, robotics and automation are likely to significantly change the skills and training required of employees. This is in line with Eberhard et al. (2017) and Gangoda, Krasley & Cobb (2022), who estimated these changes to become major in the future. The phenomenon has been on the rise for years, and it is a remarkable trend in developed countries. It is possible that it will also affect the role of HR companies in employee training and upskilling.

The interviews revealed that some of the employers have unrealistic demands on their employees, considering the labor shortage. Therefore, it is possible that companies have to change their requirement level and standards in their recruitment. HR companies may also have a role in communicating the changed labor market situation to client companies. According to Kesä & Kyntäjä (2022) and Larja & Peltonen (2023), the mismatch between labor supply and demand is partly due to the fact that employers' have too high demands for employees in relation to the workforce situation, which is supported by the findings of this research. Based on the interviews, the need to lower employee standards is a strong signal, as the changed labor supply situation has driven many companies into an unsustainable situation.

Another growing phenomenon in the labor market is the need for companies to invest in the ability to attract and engage their employees. In many companies, not only is the employee turnover rate increasing, but also attracting new employees has become more challenging than before. This has emphasized the importance of the employer brand, and on the other hand, companies' ability to engage their employees. According to interviews, many companies are looking for a solution to slow down employee turnover. These findings support Hefner, Nembhard, Moore, Dishman & Fick (2021) and Presbitero, Roxas & Chadee (2016) conclusions on the subject. The phenomenon can be considered a trend, as it has received widespread attention.

Finally, the realization of Gen-Z-related problems in the labor market is a strong signal based on the interviews. The new generation's transition to working life has brought unexpected challenges for employers. It is expectable that companies must solve problems affecting the efficiency of employees, such as concentration difficulties, psychological issues, and sick leave in order to maintain their operational capacity. In addition, the growth of individualism emphasizes the need to balance the operations of companies and the personal needs of employees. The labor shortage also increases the importance of the phenomenon, as it is easy for employees to change their workplace due to the large supply of jobs, and it is challenging for companies to find new employees. This aligns with PWC (2022), Stansell (2019) and Rodriquez, Ardoin & Landberg (2021), which found that generational differences are evident, and Gen-Z has different preferences and behaviors in comparison to previous generations.

6 Conclusions

In the previous paragraphs, the sub-research questions of the study were answered. In conclusion, there are various issues that impact people's choice of work, and the collaboration between HR companies and customers. In this section, the main research question of the study is answered by forming a strategic response to prepare for emerging phenomena.

What strategic issues are emerging under labour market transformation, which may affect HR companies?

The following paragraphs present a strategic response to various strategic issues based on the answers to the sub-research questions. As defined in the theoretical framework, the research theories are linked as follows:

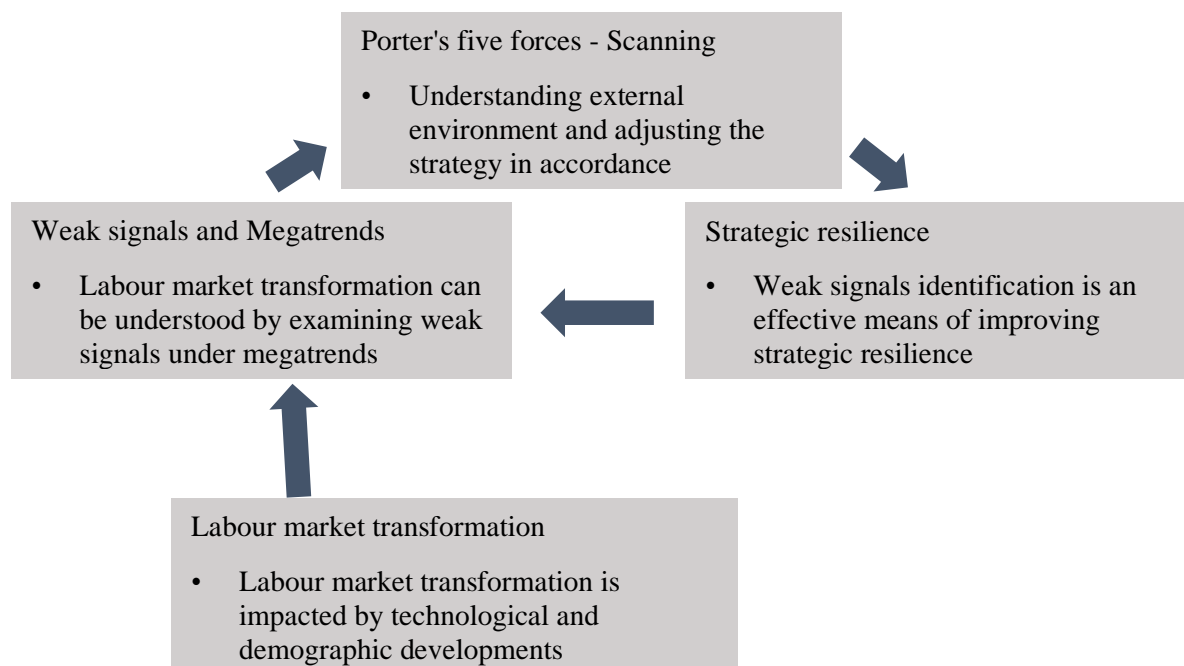


Figure 10: The link between theoretical concepts

The following paragraphs discuss the emerging phenomena identified in the study from a strategic perspective. According to Figure 10, in this study, strategic planning is thought of as a threefold process. According to Porter's five forces model, changes in the external environment are relevant in strategic planning. This can be expected to lead to improved strategic resilience. However, literature on strategic resilience suggests weak signal scanning as an effective means of improving strategic resilience, which highlights the need to include weak signal scanning in the process. Weak signals, emerging trends, may realize as industry level changes, which brings the model back to Porter's five forces.

As presented in the theoretical framework, artificial intelligence is one of the significant emerging technologies that is placed under the megatrend technological development. Moreover, it can be expected that artificial intelligence will underlie a large number of sub-trends. It is possible that not only substitute products, but also new competitors that rely on artificial intelligence -based solutions are brought to the market. As the interviews showed, the use of artificial intelligence in HR companies is at a rudimentary level and has not yet gained a strong foothold. Therefore, it is the optimal time to form a strategy for utilizing artificial intelligence, as shown in table 11, to improve business efficiency. Moreover, taking artificial intelligence into account can be an important way to avoid the growing threat in the labour market as well. If the use of artificial intelligence by applicants increases, HR companies should have measures to avoid problems that may arise in recruitment.

The importance of the employer brand is growing significantly in the labor market. From a strategic point of view, HR companies should therefore develop their employer brand supporting with employment benefits to compete for employees. Labour shortage has increased in Porter's terms the bargaining power of "suppliers", i.e. employees have more choice regarding employers. Focusing on employer branding can provide an advantage over companies that do not put effort on the matter. Moreover, in addition to developing their own employer brand, HR companies should also guide their client companies with their employer branding, especially if it is challenging to find employees in the field. Solving other emerging issues may also indirectly improve the employer brand. As employee benefits have become more important to employees than before, investing in them may be

effective in supporting the company's employer brand. Investments in the employer brand can also slow down the growing employee turnover. In order to ensure employee satisfaction, companies should ensure that the same benefits and rights are realized for both temporary workers and permanent workers.

In response to new forms of employment, it would be advisable to develop alternative service solutions to enable new forms of employment. The growing demand for light entrepreneurship and other similar means of employment for both employees and customers show the need for additional options in the labor market. In theory, new forms of employment can affect the bargaining power of suppliers and buyers, but also bring substitute products and new entrants to the market. In order to improve strategic resilience, reacting to these can be critical. Attracting Gen-Z employees may also require a new approach to employment, as their way of thinking was recognized as differing from previous generations. Modern forms of employment can be used as a means against labor shortages, for example by offering the same employees to the needs of several companies. In addition, increasing service options may increase attractiveness of HR companies for both employees and customers. Growing competition for employees with platform companies emphasizes the need to develop new means of competition.

It is challenging to find employees with today's necessary technological skills, and it is recommended that employers and HR companies consider strategies to fill the labor shortage. The low availability of employees with skills that are in high demand increases their negotiation possibilities regarding their workplace. Employee training, as well as increasing the attractiveness of the workplace in order to obtain competent people, can be necessary means to maintain full production capacity. Moreover, cooperation with schools may enable access to employees immediately upon graduation. The labor market is likely to have a long-term demand for employees with high technological competencies, and the HR company that offers the best solutions for the market area can be expected to have a significant growth opportunity and competitive advantage.

The growing importance of mobile applications was prominent in the needs of both employees and employers. Competition between HR companies with mobile applications and services may be visible in all five areas according to Porter's five forces model. HR companies should recognize the benefits of mobile applications and strive to integrate as many systems as possible into one application to reduce both their own and their clients' workload. The organization of job search, internal communication, recording of working hours and management of work shifts in the same application, as well as the automation of data collection, may form a significant means of competition for HR companies in the near future.

The interviews revealed that there are unprecedented challenges with Gen-Z employees. The weak work ability of employees is a threat at the entire industry level, which can not only increase the demand for HR companies, but also provide opportunities for those who develop means to manage the problem. Therefore, HR companies should develop a strategy to solve these challenges before they cause large-scale problems for the business. The strategy should include training in working life skills at an early enough stage so that the transition from school to working life runs smoothly. In addition, efforts should be made to systematically identify type characteristics that predict emerging problems in order to prevent them at an early stage. Measures should also be planned in cooperation with occupational health care to solve the growing challenges of employees.

The research showed that some companies' understanding of the labor market situation is not up-to-date, and employee standards are too high compared to the supply. These companies may think they have great bargaining power towards the employees and HR-companies, but in reality the employees have bargaining power towards such employers. HR companies should therefore systematically communicate the changed workforce situation to their customers. Moreover, it was found that the educational level of employees has an effect on their needs. Employees and job applicants in low-educated fields value different aspects in a workplace than those in higher-educated fields. Therefore, HR companies should consider these differences both in collaboration with customers, and in employee and applicant communication.

6.1 Theoretical implications

This research is strongly exploratory, so its findings are focused on practice and the theoretical implications are not extensive. Three concepts; Porter's five forces and scanning, strategic resilience and trend analysis, in this case the identification of weak signals, can together form an effective method for mapping the changing competitive situation and reacting to it. This study mapped the utilization of these in the evaluation of the transformation of the labor market in relation to the HR industry. The research did not find any conflict that would prevent the theoretical concepts from being used together.

This study identified aspects of the transformation of the labor market that have not appeared in previous studies. Although previous studies have identified differences in Gen-Z in comparison to previous generations, such as differences in values and the need for independence and freedom, no previous research has identified issues relating to the employment and working ability of Gen-Z employees to a similar extent as this research. In addition, although previous studies have examined the use of AI by HR professionals, the use of language models by applicants or recruiters has not been previously examined. Based on this research, these factors could be identified as emerging phenomena that may have significant effects in the transformation of the labor market.

The study looked at the transformation of the labor market as a phenomenon, and the theory of weak signals was used in its evaluation. Using weak signals in business operations can help structure information, however, the theoretical framework of weak signals provides little support for the identification of phenomena as well as the determination of developmental stages. Furthermore, the literature on weak signals is complex and somewhat contradictory. Therefore, based on this research it can be claimed that in order to enable routine use by businesses and academics, simple instructions, a framework or a form should be created for the theory of weak signals to better structure the identification of phenomena.

6.2 Practical implications

This research has various practical implications HR companies, but also any other employing companies who strive to be up to date with labour market trends. An overview was given of both the position of job seekers in the changing labor market and their effects on the activities of employers and HR companies. Moreover, based on the findings, proposals were made from a strategic point of view to respond to emerging issues in the labor market. Several phenomena identified in this research, such as the Gen-Z related issues, the importance of in-house mobile applications as a competitive tool for employers, or the opportunities provided by technological development and particularly AI, have yet to receive large-scale attention, and utilizing the findings of this study can help improve companies' strategic resilience.

This study also showed that labor market transformation can be examined using weak signals. It is possible for companies to carry out weak-signal identifications independently by interviewing their own employees about the changes they have noticed, and by systematically trying to identify emerging phenomena from the collected data.

It is recommended that HR companies and companies who desire to employ people take into account the emerging phenomena identified in this study in their strategic planning. While it is likely that some of the identified issues will not become major, it is possible that some issues will have large effects on the industry level. Therefore, early reactivity and attention to emerging issues are important means of maintaining competitiveness.

6.3 Limitations for the research

The research was carried out as a case study, where the data is collected from the Finnish country organization of HR consulting company Adecco, from Finnish people. The weak signals identified in the study have therefore been identified based on the limited perspective of these actors. Moreover, there are some legislative differences among different countries

regarding the human resources and staffing business, which may limit the use of the results of this research in other countries. In addition, it should be noted that there are considerable differences between KIBS companies operating in different industries, so the research questions and the data collected from other KIBS companies might differ from this study.

Megatrends are a broad concept, and they include several phenomena occurring on a global scale. To narrow the scope of the research, this study was focused especially on the effects of technological development and demographic change on labor market transformation. It should be noted that although megatrends are global events, their implications on a local level may vary significantly. In addition, local trends may affect the results in different countries. Therefore, the collected data and thus also the results of the study may vary in different geographic areas and countries.

There are also some limitations regarding the data collection methods. The time constraints of the research limit the number of data collection methods and the quantity and versatility of the interviewees. However, semi-structured interviews are a flexible and effective data collection method that can be used to gather accurate information on the subject. Therefore, only qualitative material is used in the research.

6.4 Future research

This study examined the transformation of the labor market and its impact on HR companies in Finland. In addition, the study applied the theory of weak signals to place the identified phenomena on different evolutionary levels. The research offers a lot of opportunities for further research in the subject area.

In future studies, it would be worthwhile to examine labor market phenomena on a larger scale, by collecting data from more countries. However, carrying out research on a global scale would be challenging, as the transformation of the labor market has large regional differences depending on the level of economic development. In addition, it would be

possible to collect research data using the Delphi method or data-mining techniques, which enable the collection of larger amounts of data. Moreover, future studies could focus on a more detailed examination of individual findings. The spread of artificial intelligence in business, emerging issues related to generation Z and new forms of work offer many opportunities for further research.

References

- Acemoglu, D., Restrepo, P. & Krueger, D. (2022) Demographics and Automation. *The Review of economic studies*. [Online] 89 (1), 1–44.
- Adecco Finland (2023) Adecco yrityksenä. [Online] Available from: <https://www.adecco.fi/adecco-yrityksena/>
- Ahlqvist, T., Uotila, T. & Hietanen, O. (2015) Chasing black swans through science fiction: Surprising future evenets in the stories of a finnish writing competition. *Journal of Futures Studies*. [Online] 20 (2), 47-66.
- Ahlqvist, T., & Uotila, T. (2020) Contextualising weak signals: Towards a relational theory of futures knowledge. *Futures*, 119, 102543.
- Amit, R. & Schoemaker, P. J. H. (1993) Strategic assets and organizational rent. *Strategic management journal*. [Online] 14 (1), 33–46.
- Ansoff, H.I., Kiple, D., Lewis, A.O., Helm-Stevens, R. & Ansoff, R. (2019) *Implanting Strategic Management*. 3rd edn. Springer International Publishing.
- Ansoff, H. I. (1975) Managing Strategic Surprise by Response to Weak Signals. *California management review*. [Online] 18 (2), 21–33.
- Barney, J. (1991) Firm Resources and Sustained Competitive Advantage. *Journal of management*. [Online] 17 (1), 99–120.
- Barona (2021) Baronan työnantajatutkimus: lähes 40 %:lla suomalaisyrityksistä hyvin heikot valmiudet palkata kansainvälistä työvoimaa. [Online] Available from: <https://barona.fi/barona/tiedotteet/baronan-tyonantajatutkimus-2021>
- Bishop, P. (2008). Spatial spillovers and the growth of knowledge intensive services. *Tijdschrift voor economische en sociale geografie*, 99(3), 281-292.
- BlackRock, 2022. What are megatrends? [Online] Available from: <https://www.blackrock.com/sg/en/investment-ideas/themes/megatrends>

BLUMEN, D. & CEPELLOS, V. M. (2023). Dimensions of the use of technology and Artificial Intelligence (AI) in Recruitment and Selection (R&S): benefits, trends, and resistance. *Cadernos EBAPE.BR*, 21(2), 1–16. <https://doi.org/10.1590/1679-395120220080x>

Campbell, K., Orr, E., Durepos, P., Nguyen, L., Li, L., Whitmore, C., Gehrke, P., Graham, L., & Jack, S. M. (2021) Reflexive Thematic Analysis for Applied Qualitative Health Research. *Qualitative report*. [Online] 26 (6), 2011–2028.

Chen, B., Liu, T., & Wang, Y. (2020) Volatile Fragility: New Employment Forms and Disrupted Employment Protection in The New Economy. *International journal of environmental research and public health*. [Online] 17 (5), 1531–.

Clarke, V. & Braun, V. (2017) Thematic analysis. *The journal of positive psychology*. [Online] 12 (3), 297–298.

Coe, N. M., Jones, K., & Ward, K. (2010) The Business of Temporary Staffing: A Developing Research Agenda. *Geography compass*. [Online] 4 (8), 1055–1068.

Collis, D. J. (1994) RESEARCH NOTE: HOW VALUABLE ARE ORGANIZATIONAL CAPABILITIES? *Strategic management journal*. 15 (SPECIAL ISSUE), 143–.

Coyne, K. P. & Subramaniam, S. (1996) Bringing discipline to strategy. *The McKinsey quarterly*. (4), 14–.

Day, G. S. & Schoemaker, P. J. H. (2005) Scanning the periphery. *Harvard business review*. 83 (11), 135–142.

Dengler, K. & Matthes, B. (2018). The impacts of digital transformation on the labour market: Substitution potentials of occupations in Germany. *Technological Forecasting & Social Change*, 137, 304–316. <https://doi.org/10.1016/j.techfore.2018.09.024>

Dolado, J., Felgueroso, F. & Jimeno, J. (2021). Past, present and future of the Spanish labour market: when the pandemic meets the megatrends. *Applied Economic Analysis*. 29 (85), 21-41. doi:10.1108/AEA-11-2020-0154

Dufva, M. (2019) What is a weak signal? *Sitra*. [Online] Available from: <https://www.sitra.fi/en/articles/what-is-a-weak-signal/>

Eberhard, B., Podio, M., Alonso, A. P., Radovica, E., Avotina, L., Peiseniece, L., Sendon, M. C., Lozano, A. G., & Solé-Pla, J. (2017) Smart work: The transformation of the labour market due to the fourth industrial revolution (I4.0). *International Journal of Business and Economic Sciences Applied Research*. [Online] 10 (3), 47–66.

European Commission (2020) Economic power shifts. [Online] Available from: https://knowledge4policy.ec.europa.eu/foresight/topic/expanding-influence-east-south/power-shifts_en

European Commission (2022) Increasing demographic imbalances. [Online] Available from: https://knowledge4policy.ec.europa.eu/increasing-demographic-imbalances_en

European Commission (2023) Accelerating technological change and hyperconnectivity. [Online] Available from: https://knowledge4policy.ec.europa.eu/accelerating-technological-change-hyperconnectivity_en

Eskola, & Suoranta, J. (1998). *Johdatus laadulliseen tutkimukseen*. Vastapaino.

Esteve, A. (2017) The business of personal data: Google, Facebook, and privacy issues in the EU and the USA. *International data privacy law*. [Online] 7 (1), 36–47.

EY, 2020. Megatrends 2020 and beyond. [Online] Available from: https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/megatrends/ey-megatrends-2020.pdf

Feng, P., GROWE, A. & Yuming. S. (2022). The Middle-aged and Knowledge Workers: Demographic and Economic Changes in the Pearl River Delta, China. *Chinese Geographical Science*, 32(2), 268–284.

Forero, R., Nahidi, S., De Costa, J., Mohsin, M., Fitzgerald, G., Gibson, N., McCarthy, S., & Aboagye-Sarfo, P. (2018) Application of four-dimension criteria to assess rigour of qualitative research in emergency medicine. *BMC health services research*. [Online] 18 (1), 120–120.

Furr, N. R. & Eisenhardt, K. M. (2021) Strategy and Uncertainty: Resource-Based View, Strategy-Creation View, and the Hybrid Between Them. *Journal of management*. [Online] 47 (7), 1915–1935.

- Galletta, A. & Cross, W. E. (2013) *Mastering the Semi-Structured Interview and Beyond: From Research Design to Analysis and Publication*. [Online]. New York: NYU Press.
- Gangoda, A., Krasley, S., & Cobb, K. (2023). AI digitalisation and automation of the apparel industry and human workforce skills. *International Journal of Fashion Design, Technology and Education, ahead-of-print*(ahead-of-print), 1–11.
<https://doi.org/10.1080/17543266.2023.2209589>
- Görs, P. K., Hummert, H., Traum, A. & Nerding, F.W. (2019) Impact of Digitalization on Service Work in Knowledge-Intensive Business Services: An Empirical Study in Tax Consultancies. *Journal of service management research*. [Online] 3 (4), 209–222.
- Hefner, J.L., Nembhard, I.M., Moore, H., Dishman, L. & Fick, J. (2021) The challenge of employee retention in medical practices across the United States: an exploratory investigation between operational succession planning and employee turnover. *Advances in health care management*. [Online] 20, 45-75.
- Hirsjärvi, S. & Hurme, H. (2022) *Tutkimushaastattelu : teemahaastattelun teoria ja käytäntö*. [2nd ed]. Helsinki: Gaudeamus.
- Holopainen, M. & Toivonen, M. (2012) Weak signals: Ansoff today. *Futures : the journal of policy, planning and futures studies*. [Online] 44 (3), 198–205.
- Ilmola, L. & Kuusi, O. (2006) Filters of weak signals hinder foresight: Monitoring weak signals efficiently in corporate decision-making. *Futures : the journal of policy, planning and futures studies*. [Online] 38 (8), 908–924.
- Isabelle, D., Horak, K., McKinnon, S. & Palumbo, C. (2020) Is Porter’s Five Forces Framework Still Relevant? A study of the capital/labour intensity continuum via mining and IT industries. *Technology innovation management review*. [Online] 10 (6), 28–41.
- Jia, Y., Su, J., Cui, L., Wu, L. & Hua Tan, K. (2023) Platform business model innovation in the digitalization era: A ‘driver-process-result’ perspective. *Journal of business research*. [Online] 160.
- Jordhus-lier, D., Coe, N. M., & Bråten, S. T. (2015) Contested growth: the development of norway’s temporary staffing industry. *Geografiska annaler. Series B, Human geography*. [Online] 97 (1), 113–130.

- Kallio, H., Pietilä, A-M., Johnson, M. & Kangasniemi, M. (2016) Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of advanced nursing*. [Online] 72 (12), 2954–2965.
- Kaltiainen, J. & Hakanen, J. (2023) Miten Suomi voi?. Työterveyslaitos. [Online] Available from: <https://www.ttl.fi/tutkimus/hankkeet/miten-suomi-voi>
- Kesä, M. & Kyntäjä, E. (2022) Mistä löytyisi hyvä työnantaja? Tutkimus työmarkkinoiden kohtaannon parantamisesta työnhakijan näkökulmasta. [Online] Available from: <https://www.sttinfo.fi/data/attachments/00762/6f487f86-fc98-4c81-8b08-3fa9a0cbf733.pdf>
- Kim, J., & Lee, C. (2017) Novelty-focused weak signal detection in futuristic data: Assessing the rarity and paradigm unrelatedness of signals. *Technological Forecasting and Social Change*, 120, 59-76.
- Kim, M., Baker, M. A., & Ma, E. (2023) From customers' fingertips to employees' well-being: The impact of mobile application ordering from a job demand-resource perspective. *Tourism management (1982)*. [Online] 96104695–.
- Kompalla, A., Geldmacher, W., Just, V., & Lange, S. (2017). Tailored automotive business strategies in the context of digitalization and service-oriented models. *Calitatea*, 18(156), 77.
- Komutanont, W. P., & Pires, G. (2016). Insights of Resilience to Crisis in the Airline Industry. *Global Business & Economics Anthology*, 1.
- Larja, L. & Peltonen, J. (2023) Työvoiman saatavuus, työvoimapula ja kohtaanto-ongelmat vuonna 2022. Työ- ja elinkeinoministeriö. [Online] Available from: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/164550/Tyovoimatiekartat_hankkeen%20loppuraportti_tarkistettu.pdf
- Li, L. Mo, Y. & Zhou, G. (2022) Platform economy and China's labor market: structural transformation and policy challenges. *China economic journal*. [Online] 15 (2), 139–152.
- Lincoln, Y.S. and Guba, E.G. (1986), But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Program Evaluation*, 1986: 73-84. <https://doi.org/10.1002/ev.1427>

Lincoln Y.S., Guba E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Malik, A., Budhwar, P., Mohan, H., & N. R., S. (2023) Employee experience –the missing link for engaging employees: Insights from an MNE’s AI-based HR ecosystem. *Human resource management*. [Online] 62 (1), 97–115.

Manning, L. & Soon, J. M. (2016) Building strategic resilience in the food supply chain. *British food journal (1966)*. [Online] 118 (6), 1477–1493.

Marens, R. (2018) Laying the Foundation: Preparing the Field of Business and Society for Investigating the Relationship Between Business and Inequality. *Business & society*. [Online] 57 (6), 1252–1285.

Marino-Romero, J. A., Palos-Sanchez, P. R. & Velicia-Martin, F. (2023) Improving KIBS performance using digital transformation: study based on the theory of resources and capabilities. *Journal of service theory and practice*. [Online]

McKinsey (2016) Where machines could replace humans – and where they can’t (yet). *McKinsey Quarterly*. [Online] Available from:
<https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/where-machines-could-replace-humans-and-where-they-cant-yet>

Mendonça, S., Cunha, M. P., Kaivo-oja, J., & Ruff, F. (2004) Wild cards, weak signals and organisational improvisation. *Futures*, 36(2), 201-218. Pinsonneault, A., & Choi, I. (2022). Digital-enabled strategic agility: It’s time we examine the sensing of weak signals. *European Journal of Information Systems*, 31(6), 653-661.

Menegatti, E. (2023) Platform workers: employees or not employees? The EU’s turn to speak. *ERA Forum*. [Online] 23 (3), 313–324.

Mennuni, A. (2019) The aggregate implications of changes in the labour force composition. *European economic review*. [Online] 11683–106.

Minbaeva, D. (2021) Disrupted HR? *Human resource management review*. [Online] 31 (4), 100820–.

- NAV (2022) Norske virksomheter mangler 70.000 arbeidstakere. [Online] Available from: <https://www.nav.no/no/nav-og-samfunn/kunnskap/analyser-fra-nav/nyheter/norske-virksomheter-mangler-70.000-arbeidstakere>
- Nowell, L. S., Norris, J. M., White, D. E. & Moules, N. J. (2017) Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International journal of qualitative methods*. [Online] 16 (1), 1–13.
- Nählinder, Johanna. (2005). Innovation and Employment in Services: The case of Knowledge Intensive Business Services in Sweden. Linköping University Electronic Press. [Online] Available from: <http://urn.kb.se/resolve?urn=urn:nbn:se:liu:diva-4256>
- Ozuem, W. Willis, M. & Howell, K. (2022) Thematic analysis without paradox: sensemaking and context. *Qualitative market research*. [Online] 25 (1), 143–157.
- Pelli, P. (2022) Suomen houkuttelevuudesta: ”Maakuva ei ole ollenkaan niin vahva kuin ajattelimme”. Helsingin Sanomat. [Online] Available from: <https://www.hs.fi/politiikka/art-2000009197619.html>
- Pinsonneault, A. & Choi, I. (2022) Digital-enabled strategic agility: it’s time we examine the sensing of weak signals. *European journal of information systems*. [Online] 31 (6), 653–661.
- Porter, M. (1980) Competitive strategy: Techniques for analyzing industries and competitors. New York: Free Press.
- Porter, M. E. (1996). What is strategy?. *Harvard Business Review*, 74(6), 61-78.
- Porter, M. E. (2008) The five competitive forces that shape strategy. *Harvard business review*. 86 (1), 78–137.
- Presbitero, A., Roxas, B., & Chadee, D. (2016) Looking beyond HRM practices in enhancing employee retention in BPOs: focus on employee-organisation value fit. *International journal of human resource management*. [Online] 27 (6), 635–652.
- Priem, R. L., & Butler, J. E. (2001). Tautology in the Resource-Based View and the Implications of Externally Determined Resource Value: Further Comments. *The Academy of Management Review*, 26(1), 57–66. <https://doi.org/10.2307/259394>

- PWC (2022) Megatrends: Five global shifts reshaping the world we live in. [Online] Available from: <https://www.pwc.com/gx/en/issues/assets/pdf/pwc-megatrends-october-2022.pdf>
- Raia, M. (2017). Providing a better digital experience for employees. *Strategic HR Review*.
- Ribeiro-Navarrete, S., Botella-Carrubi, D., Palacios-Marqués, D. and Orero-Blat, M. (2021) The effect of digitalization on business performance: An applied study of KIBS. *Journal of business research*. [Online] 126319–326.
- Ritter, T. & Pedersen, C. L. (2020) Digitization capability and the digitalization of business models in business-to-business firms: Past, present, and future. *Industrial marketing management*. [Online] 86180–190.
- Rodriguez, A., Ardoin, E., & Landberg, O. (2021). Gen Z and Banking: Capturing Gen Zers as Employees. *Organization Development Journal*, 39(1), 77–85.
- Ronda, L., Valor, C., & Abril, C. (2018) Are they willing to work for you? An employee-centric view to employer brand attractiveness. *The journal of product & brand management*. [Online] 27 (5), 573–596.
- Rossel, P. (2012) Early detection, warnings, weak signals and seeds of change: A turbulent domain of futures studies. *Futures*. [Online] 44(3), 229-239.
- Sampson, H. (2013) Globalisation, labour market transformation and migrant marginalisation: The example of transmigrant seafarers in Germany. *Journal of international migration and integration*. [Online] 14 (4), 751–765.
- Sanchez, R. (2008) ‘A scientific critique of the resource-base view (RBV) in strategy theory, with competence-based remedies for the RBV’s conceptual deficiencies and logic problems’, in *A Focused Issue on Fundamental Issues in Competence Theory Development*. [Online]. Emerald Group Publishing Limited. pp. 3–78.
- Saunders, M., Lewis, P. & Thornhill, A. (2016) *Research methods for business students: 7. ed.* Harlow u.a: Pearson.
- Schoemaker, P.J.H. & Day, G.S. (2009) How to make sense of weak signals. *MIT Sloan Management Review*. [Online] 50 (3), 81-89.

- Sestino, A., Prete, M. I., Piper, L. & Guido, G.(2020) Internet of Things and Big Data as enablers for business digitalization strategies. *Technovation*. [Online] 98102173–102173.
- Shearmur, R. & Doloreux, D. (2009) Place, Space and Distance: Towards a Geography of Knowledge-Intensive Business Services Innovation. *Industry and innovation*. [Online] 16 (1), 79–102.
- Siddiqui, K. (2016) Will the Growth of the BRICs Cause a Shift in the Global Balance of Economic Power in the 21st Century? *International journal of political economy*. [Online] 45 (4), 315–338.
- Stansell, A. (2019). The next generation of talent: Where Gen Z wants to work. *Glassdoor*. <https://www.glassdoor.com/research/gen-z-workers/>
- Statistikmyndigheten (2022) Arbetskraftsbarometern 2022. [Online] Available from: https://www.scb.se/contentassets/a12b37a263104dca9f9b1f69107f7b00/uf0505_2022a01_am78br2203.pdf
- Švarc, J. & Dabić, M. (2021) The digitalization of work: Which way forward?. *2021 IEEE Technology & Engineering Management Conference*. [Online] Available from: <https://ieeexplore-ieee-org.ezproxy.cc.lut.fi/stamp/stamp.jsp?tp=&arnumber=9488604&tag=1>
- The Adecco Group (2022) Annual Report 2021. [Online] Available from: <https://www.adecco-jobs.com/-/media/project/adeccogroup/pdf-files/2022-march/adecco-group-annual-report-2021-single-page.pdf/>
- Tienda, M. (2016) Economic Implications of Demographic Change: Diversity Dividend or Deficit? *Business economics (Cleveland, Ohio)*. [Online] 51 (1), 11–17.
- Tobin, G. A. & Begley, C. M. (2004) Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*. [Online] 48 (4), 388–396.
- Toivonen, M. (2004). Expertise as business: Long-term development and future prospects of knowledge-intensive business services (KIBS).
- Toivonen, M. (2007) Innovation policy in services: The development of knowledge-intensive business services (KIBS) in Finland. *Innovation (North Sydney)*. [Online] 9 (3-4), 249–261.

- Työ- ja elinkeinoministeriö (2023) Työvoiman saatavuus, työvoimapula, kohtaantongelmat vuonna 2022. [Online] Available from: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/164550/Työvoimatiekartat_hankkeen%20loppuraportti_tarkistettu.pdf
- Ulkoministeriö (2023) Maakuvatyö. [Online] Available from: <https://um.fi/maakuvatyo>
- Vachon, T. E. & Wallace, M. (2013) Globalization, Labor Market Transformation, and Union Decline in U.S. Metropolitan Areas. *Labor studies journal*. [Online] 38 (3), 229–255.
- Vaillant, Y., Lafuente, E., Horváth, K. & Vendrell-Herrero, F. (2021) Regions on course for the Fourth Industrial Revolution: the role of a strong indigenous T-KIBS sector. *Regional studies*. [Online] 55 (10-11), 1816–1828.
- van Esch, P., Black, J. S., & Arli, D. (2021). Job candidates' reactions to AI-enabled job application processes. *AI and Ethics*, 1, 119-130.
- van Veen, B. L., & Ortt, J. R. (2021). Unifying weak signals definitions to improve construct understanding. *Futures*, 134, 102837.
- Vogus, T. J., & Sutcliffe, K. M. (2007, October). Organizational resilience: towards a theory and research agenda. In *2007 IEEE international conference on systems, man and cybernetics* (pp. 3418-3422). IEEE.
- von Groddeck, V. & Schwarz, J. O. (2013) Perceiving megatrends as empty signifiers: A discourse-theoretical interpretation of trend management. *Futures: the journal of policy, planning and futures studies*. [Online] 4728–37.
- Väläkangas, L. (2016) Strategic Resilience. *The Palgrave Encyclopedia of Strategic Management*. [Online] Available from: https://doi.org/10.1057/978-1-349-94848-2_375-1
- Wernerfelt, B. (1984) A resource-based view of the firm. *Strategic management journal*. [Online] 5 (2), 171–180.
- World Economic Forum (2023) Megatrends and their impact on the global investment landscape. [Online] Available from: <https://www.weforum.org/agenda/2023/01/megatrends-and-their-impact-on-global-investing-davos23/>

- Yeh, S. T., & Ramirez, R. (2017). Service innovation for knowledge intensive services in the digital age: a framework. In *AMCIS*. [Online] Available from: <https://core.ac.uk/download/pdf/301372026.pdf>
- Yip, A. & Coe, N. M. (2018) Constrained agencies: The emergence of Singapore's distinctive temporary staffing industry: Singapore temporary staffing. *Asia Pacific viewpoint*. [Online] 59 (1), 17–33.
- Yu, H. H. K., Chiu, D. K., & Chan, C. T. (2023). Resilience of Symphony Orchestras to Challenges in the COVID-19 Era: Analyzing the Hong Kong Philharmonic Orchestra With Porter's Five Force Model. In *Handbook of Research on Entrepreneurship and Organizational Resilience During Unprecedented Times* (pp. 586-601). IGI Global.
- Yunna, W. & Yisheng, Y. (2014). The competition situation analysis of shale gas industry in China: Applying Porter's five forces and scenario model. *Renewable & Sustainable Energy Reviews*, 40, 798–805. <https://doi.org/10.1016/j.rser.2014.08.015>
- Yum, S. (2019) The interaction between knowledge-intensive business services and urban economy. *The Annals of regional science*. [Online] 63 (1), 53–83.
- Zieba, M. (2013) 'Knowledge-Intensive Business Services (KIBS) and Their Role in the Knowledge-Based Economy', in *European Conference on Knowledge Management*. 2013 Kidmore End: Academic Conferences International Limited. p. 785–.