



Vaasan yliopisto
UNIVERSITY OF VAASA

Lisa Marie Rusanen

The Impact of Digitalization on Employee Well-being in Nordic Multinational Corporations

School of Management
Master's Thesis in
International Business

Vaasa 2026

UNIVERSITY OF VAASA**School of Management**

Author:	Lisa Marie Rusanen		
Title of the thesis:	The Impact of Digitalization on Employee Well-being in Nordic Multinational Corporations		
Degree:	Master of Science in Economics and Business Administration		
Degree Programme:	International Business		
Supervisor:	William Degbey		
Year:	2026	Pages:	102

ABSTRACT:

Digitalization has significantly changed the nature of work itself in multinational corporations (MNCs), especially in the Nordic countries, where flexible working practices and advanced digital infrastructure are widely used. The adoption of digital technology has been a significant benefit for organizations, as it opens many new ways to operate in order to succeed. However, these technologies also have negative aspects, especially their impact on employee well-being. This thesis examines the relationship between digitalization, employee well-being, and the role of digitalized work demands and resources in employee well-being in Nordic multinational companies.

The study was conducted using a qualitative research method. The empirical data for the study were collected through nine semi-structured interviews with employees working in Nordic multinational corporations. The data were analyzed using thematic analysis, and the Job Demands–Resources (JD-R) model was used as the theoretical framework for the analysis.

Research shows that digitalization increases work demands, for example through constant online presence, information overload, faster work pace and blurring of boundaries between work and leisure. An increased cognitive load on the employee may lead to decreased ability for the employee to focus and recover. However, at the same time, digital transformation provides important resources for work such as flexibility, autonomy, digital collaboration tools, social and leadership support, and learning and developing skills. These work resources can increase employee motivation, create a better balance between work and life, and help employees manage the pressures of digital work.

Research results suggest that the impact of digitalization on employee well-being is not simply positive or negative but depends on the balance between demands and resources. In multinational companies operating in the Nordic countries, factors such as trust-based leadership, low hierarchy and employee autonomy influence how digital work is experienced. The study complements existing literature by highlighting the duality and context-dependence of digital work and by extending the JD-R model to better describe digitally mediated work environments.

KEYWORDS: digitalization, well-being at work, multinational corporations, remote work, technostress

VAASAN YLIOPISTO**School of Management**

Tekijä:	Lisa Marie Rusanen		
Tutkielman nimi:	The Impact of Digitalization on Employee Well-being in Nordic Multinational Corporations		
Tutkinto:	Kauppatieteiden maisteri		
Koulutusohjelma:	International Business		
Työn ohjaaja:	William Degbey		
Valmistumisvuosi:	2026	Sivumäärä:	102

TIIVISTELMÄ:

Digitalisaatio on muuttanut merkittävästi työn luonnetta monikansallisissa yrityksissä, etenkin Pohjoismaissa, joissa joustavat työtavat ja edistyksellinen digitaalinen infrastruktuuri ovat laajasti käytössä. Digitaalisen teknologian käyttöönotto on ollut merkittävä etu organisaatioille, sillä se avaa monia uusia toimintatapoja menestymisen saavuttamiseksi. Näillä teknologioilla on kuitenkin myös negatiivisia puolia, erityisesti työntekijöiden hyvinvoinnin näkökulmasta. Tässä tutkimuksessa tarkastellaan, miten digitalisaatio vaikuttaa työntekijöiden hyvinvointiin pohjoismaisissa monikansallisissa yrityksissä sekä millainen rooli digitaalisilla työvaatimuksilla ja -resursseilla on tämän suhteen muotoutumisessa.

Tutkimus toteutettiin laadullisella tutkimusmenetelmällä. Tutkimuksen aineisto kerättiin yhdeksän puolistrukturoidun haastattelun avulla, joiden haastateltavat olivat pohjoismaisissa monikansallisissa yrityksissä työskenteleviä henkilöitä. Aineisto analysoitiin temaattisen analyysin avulla. Tutkimustulosten tarkastelussa käytettiin tutkimuksen teoreettista viitekehystä, johon hyödynnettiin työn vaatimusten ja voimavarojen (Job Demands-Resources) mallia.

Tutkimustulokset viittaavat siihen, että digitalisaatio lisää työn vaatimuksia esimerkiksi jatkuvan verkossa olemisen, tietotulvan, nopeamman työtahdin sekä työn ja vapaa-ajan rajojen hämärtyksen kautta. Työntekijän kognitiivisen kuormituksen lisääntyminen voi heikentää keskittymis- ja palautumiskykyä. Samanaikaisesti digitaalinen muutos tarjoaa myös tärkeitä työresursseja, kuten joustavuutta, itsenäisyyttä, digitaalisia yhteistyövälineitä, sosiaalista ja johtajuustukea sekä oppimista ja osaamisen kehittämistä. Nämä työresurssit voivat lisätä työntekijöiden motivaatiota, luoda paremman tasapainon työn ja yksityiselämän välille sekä auttaa työntekijöitä selviytymään digitaalisen työn paineista.

Tutkimustulokset osoittavat, että digitalisaation vaikutus työntekijöiden hyvinvointiin ei ole yksiselitteisesti vain positiivinen tai negatiivinen, vaan se riippuu työn vaatimusten ja resurssien välisestä tasapainosta. Pohjoismaissa toimivissa monikansallisissa yrityksissä tekijät kuten luotamukseen perustuva johtaminen, matala hierarkia ja työntekijöiden autonomia vaikuttavat siihen, miten itse digitaalinen työ koetaan. Tutkimus täydentää aiempaa kirjallisuutta tuomalla esiin digitaalisen työn kaksinaisuutta ja kontekstiriippuvuutta, sekä laajentamalla JD-R-mallia siten, että se soveltuu paremmin digitaalisten työympäristöjen tarkasteluun.

AVAINSANAT: digitalization, well-being at work, multinational corporations, remote work, technostress

Contents

1	Introduction	7
1.1	Background of the study	7
1.2	Objectives, research questions and delimitations	9
1.3	Definition of key concepts	11
1.4	Structure of the thesis	12
2	Literature review	14
2.1	Digital work demands and employee well-being in MNCs	14
2.1.1	Intensified work and constant connectivity	16
2.1.2	Information overload and cognitive demands	18
2.1.3	Blurred work–life boundaries in digital and remote work	20
2.1.4	Technostress as a cumulative digital job demand	21
2.2	Digital work resources and employee well-being in MNCs	24
2.2.1	Flexibility and autonomy	25
2.2.2	Digital collaboration, social support and skill development	26
2.2.3	Organizational support and Nordic organizational values	28
2.3	Theoretical framework: The JD–R perspective on digital work	31
2.3.1	The Job Demands-Resources Model	31
2.3.2	Digital job demands and resources in the workplace	33
2.3.3	Applying the JD-R model to Nordic MNCs	35
2.3.4	Summary of theoretical framework	39
3	Methodology	42
3.1	Research approach	42
3.2	Data collection and sample	44
3.3	Research analysis	46
3.4	Quality of the research	47
4	Research findings	50
4.1	Nordic MNC work context	50
4.2	Digital work demands in Nordic MNCs	53

4.3	Digital work resources in Nordic MNCs	60
4.4	Impact on employee well-being	69
4.4.1	Cognitive load and concentration	70
4.4.2	Stress and pressure	72
4.4.3	Work-life balance	74
4.5	Summary of findings	75
5	Discussion	78
5.1	Digital work demands and employee well-being	78
5.2	Digital work resources and employee well-being	80
5.3	The overall impact of digitalization on employee well-being in Nordic MNCs	83
5.4	Updated theoretical framework	86
6	Conclusion	89
6.1	Key findings	89
6.2	Theoretical, empirical and practical contributions	91
6.2.1	Theoretical contributions	91
6.2.2	Empirical contributions and practical implications	92
6.3	Future research suggestions	94
	References	96
	Appendices	101
	Appendix 1. Interview questions	101

Figures

Figure 1. Information overload as an inverted U-curve (Horlings et al., 2023, p. 223).	18
Figure 2. Methods for coping with technostress.	24
Figure 3. JD-R model applied to technology use.	32
Figure 4. Factors of particular significance for the future of the working environment (Alsos & Dølvik, 2021, p. 50).	38
Figure 5. Theoretical framework of the thesis.	41
Figure 6. Updated theoretical framework.	88

Tables

Table 1. Technostressors (Kumar, 2024, p. 2).	22
Table 2. Overview of interviewees.	46
Table 3. Key digital work demands identified in the interviews.	60
Table 4. Key digital work resources identified in the interviews.	69

Abbreviations

AI = Artificial Intelligence

HR = Human Resources

IB = International Business

ICT = Information and Communication Technology

JD-R = Job Demands–Resources

MNC = Multinational Corporation

1 Introduction

This chapter first presents the background, objectives, research questions, and limitations of the study. It then presents the definitions of key concepts and finally the structure of the thesis.

1.1 Background of the study

Digitalization has progressed particularly rapidly in the Nordic countries thanks to advanced digital infrastructure, high technological expertise, and strong institutional support for flexible working arrangements. Previous studies show that, in the Nordic context, digital working practices are often promoted by collective agreements and labor market institutions that promote autonomy, equality, and work-life balance (Eurofound, 2020, p. 13). However, new pressures from digitalization and globalization have brought new forms of inequality and changed the dynamics of work and participation. Although the Nordic working life model remains sustainable, growing social differences may threaten its stability in the future. This highlights the need to explore how digital change is shaping Nordic values of equality, self-determination, and well-being. Such knowledge can help create more inclusive and sustainable organizational practices (Torp & Reiersen, 2020, p. 16).

Digitalization refers to the integration of digital technologies into organizational processes and business models, leading to fundamental changes in how organizations create value and organize work (Vial, 2019, p. 118). In this thesis, digitalization is understood as a continuous change in an organization enabled by digital technologies that transform working methods, communication models, and employee experiences. This definition distinguishes digitalization from digitization, which refers narrowly to the conversion of analog information into digital form (Gobble, 2018, p. 56).

The growing tension between the benefits and challenges of digitalization makes this topic highly relevant and important. In today's work environment, it is common to

encounter both the convenience of flexible digital tools and the pressure of constant communication. Digitalization and digitization are related to analysis and interaction systems that utilize digitized data and processes. In this process, digitized data forms the basis for information that is also used to implement actions and bring about change. This digitization process leads to digital transformation, in which business operations are renewed based on the new opportunities and requirements offered by digital technology (Gobble, 2018, p. 56-57).

The Nordic countries – Finland, Sweden, Norway, Denmark, and Iceland – offer a unique context for this research, not only because of their advanced digital infrastructure and progressive working practices, but also because their culture strongly emphasizes well-being, equality, and work-life balance (Berg et al., 2023, pp. 25-26). Nordic multinational corporations operate in several markets and therefore must adapt to different cultural expectations, labor laws, and workplace practices. This creates challenges for employee well-being. Practices that are well suited to Nordic values, such as flexible working hours or a high degree of autonomy, do not necessarily translate seamlessly to subsidiaries operating in different institutional or cultural environments. Nordic multinational corporations must therefore constantly adapt their approaches to digital work while maintaining their organizational identity and commitment to well-being (Berg et al., 2023, p. 28).

This study examines the experiences of employees and managers in Nordic multinational companies in order to understand how digitalization affects employee well-being in these organizations. Focusing specifically on Nordic multinational companies, the study examines how globally spreading digital work practices are experienced and managed in organizations that have been shaped by Nordic institutional and cultural values related to work, independence, and well-being. This context-sensitive approach enables the identification of practices and challenges that are particularly relevant to Nordic multinational companies as they seek to promote employee well-being in increasingly digital work environments.

Although digitalization has been extensively studied in organizational and human resource research, its effects on employee well-being in Nordic multinational companies remain understudied from an international business (IB) perspective. Previous IB studies have mainly focused on how digitalization changes coordination, management, and information flow in multinational companies (Hennart, 2019, pp. 1390–1395). As Hennart (2019, pp. 1398–1399) notes, digitalization reinforces existing theories of international business, but it also brings new complexities to the management of global operations. However, these frameworks rarely address the impact of such changes on people. This thesis aims to address this gap by examining how digitalization affects employee well-being in Nordic multinational companies, focusing on the balance between digital work demands and digital work resources.

1.2 Objectives, research questions and delimitations

As the contemporary workplace undergoes digital transformation, analyzing its effects on employee well-being is now more important than ever. The Nordic countries have been recognized for their early adoption of technology and remote work. During the pandemic, approximately 50–60% of Nordic employees have started working remotely, most of them against their will (Alsos & Dølvik, 2021, p. 10). After the pandemic, the Nordic countries still led this shift, with 41% of employees working from home. Compared to whole Europe, the average for remote workers was only 24%, and the gap has only increased since then (Gill et al., 2025, p. 1). This is also supported by robust social security systems and progressive labor market policies. However, even in this advanced situation, the rapid pace of digital transformation brings new challenges for employees. Blurred work-life boundaries, constant communication and increased cognitive demands raise concerns about mental well-being. It is also important for sustainability to recognize that remote working does not affect all groups equally. Many workers are unable to work remotely, and the benefits and disadvantages of remote working vary between different population groups. While remote working can support regional development and reduce commuting, it can also lead to increased resource use and longer, less sustainable travel if not managed carefully (Randall et al., 2022, p. 4).

Although digitalization has become an important topic in international business research, the discussion has focused primarily on its effects on coordination, control, knowledge flows, and the management of multinational operations. Considerably less attention has been given to how digitalization affects employees themselves, particularly from the perspective of employee well-being. This leaves an important gap in the IB literature, especially in the context of Nordic multinational corporations, where digital work is shaped by distinctive institutional and organizational characteristics. This thesis addresses that gap by examining how digitalization affects employee well-being through digital job demands and resources in Nordic MNCs.

The goal of this thesis is to explore the impact of digitalization on employee well-being in a Nordic context within multinational corporations. This study employs the Job Demands-Resources (JD-R) model as the primary lens to examine these dynamics. The JD-R model offers a holistic understanding of the impact of digitalization. On one hand, it presents new job demands, such as information overload, constant connection, and a lack of boundaries on work and personal life. On the other, digitalization also offers new job resources like increased flexibility, greater autonomy, and improved social support (Kunzelmann & Rigotti, 2021, pp. 311 - 312). The present study examines how such digital challenges and resources interact to affect employee well-being in Nordic MNCs. The study aims to present practical implications for organizations to promote healthier and more sustainable digital working conditions.

The main research question of this thesis is as follows:

“How does digitalization influence employee well-being in Nordic multinational corporations (MNCs)?”

In order to answer this question, the following sub-questions are created.

1. How do digital work demands inhibit employee well-being in Nordic MNCs?
2. How do digital work resources enhance employee well-being in Nordic MNCs?

To answer the research questions, the thesis seeks to explore how digitalization is shaping well-being in the Nordic MNC work context. Firstly, it is examined how digital technology has changed every day working practices. The thesis examines the adoption of digital tools, the growth of remote working and hybrid work, and how organizations have adapted to these changes. With technostress, emotional fatigue, job satisfaction, work-life balance, and overall employee well-being individually already covered, the study then shifts focus to how the changes affect the employees. Moving on, it analyzes the national and organizational infrastructures, as well as policies relating to the workplace that help or undermine employee well-being in relation to the digital requirements placed on them. Moreover, the thesis determines what organizations can do, or are currently doing, to assist their personnel and develop healthier, sustainable frameworks that foster digital work productivity.

Achieving these goals will help research develop a comprehensive understanding of how digital transformation affects employees in Nordic MNCs. The research seeks to examine digitalization and its duality in employee well-being and challenges as well as its benefits. In addition, it studies how the Nordic model is being reshaped by the adaptive realities of digital work. This study aims to provide concrete recommendations to organizations on stress management in digital workplace environments by addressing the positive aspects of digital work and the negative aspects. This will provide the fields of international business and organizational psychology with recommendations to support balanced digital work systems that promote employee well-being.

1.3 Definition of key concepts

Digitalization

Digitalization can be defined as a technology-driven process that brings about profound organizational change by transforming business activities, processes, and structures, leading to improvements across multiple areas of business (Bhandari et al., 2023, p. 2).

Digital transformation

Digital transformation refers to a broad-based change in which digital technologies, such as artificial intelligence and data utilization, fundamentally reshape the operations, structures, and value creation of organizations. The phenomenon is often associated with the fourth industrial revolution, which enables new ways of organizing work and economic activity (Bhandari et al., 2023, p. 3).

Multinational corporation

Multinational corporation (MNC) can be defined as an organization that operates across national borders, commonly referred to as a multinational company, multinational enterprise, or transnational corporation, with international activities no longer limited to large firms due to advances in digital communication (Aggarwal et al., 2011, p. 557).

Nordic MNC

A Nordic multinational corporation (Nordic MNC) is an example of a firm located in the Nordic region and practices substantial cross-border and international trade while still retaining some of the specific region's institutional, cultural, and organizational characteristics Nordic business environment (Björkman & Forsgren, 2000, p. 6).

Employee well-being

An employee's well-being encompasses the mental, emotional, and occupational health, with specific attention to job satisfaction, individual stress, and the ability to manage work and personal life (Harju et al., 2021, pp. 956-958).

1.4 Structure of the thesis

The structure of this thesis is divided into six chapters. Chapter 1 includes the background of the study, in which the background, motivation, and significance of the study are presented. The chapter also provides the research questions, objectives, and limitations of the study, as well as the definition of key concepts.

Chapter 2 addresses the literature review of the thesis. In this chapter the digital work demands and resources in employee well-being in MNCs are introduced. This chapter also presents the theoretical framework of the study, the JD–R model.

Chapter 3 introduces the methodology of the study. In this chapter the research method and sample are presented, and validity and reliability are evaluated. Chapter 4 contains the results of the study and in chapter 5 the findings are analyzed based on prior literature. Chapter 6 is the conclusion, which reviews the main findings, theoretical, empirical and practical contributions, and future research proposals.

Artificial intelligence was used in the preparation of this thesis to design its structure, layout, and linguistic presentation. In particular, artificial intelligence was used to refine sentence structures, improve the fluency and clarity of the text, and ensure consistency in academic English. The content, analysis, and conclusions of this thesis are entirely the author's own.

2 Literature review

This chapter covers the literature review of the thesis. In this chapter the digital work demands and resources of employee well-being in multinational corporations are presented. The chapter also introduces JD-R model and the theoretical framework of the study.

2.1 Digital work demands and employee well-being in MNCs

Digital technology allows people to work almost anywhere and anytime, but this flexibility can also lead to social and professional isolation, reducing opportunities for organizational support. Flexible arrangements can create new forms of independence, but also interdependence and dependency, which can make it difficult to balance work and private life. For workers with care responsibilities, these challenges are often greater, as flexibility can lead to extra unpaid work and blurring of the boundaries between professional and private roles. Furthermore, flexibility is not always genuine, but can be limited by low pay, irregular working hours, or limited opportunities, particularly in the case of platform workers (Charles et al., 2022, p. 26).

Digitalization has increased the pace of everyday life and created a so-called “accelerated society”, with multiple tasks, fewer breaks, and constant time pressure. Information and communication technology (ICT) speeds up and facilitates the performance of tasks, but it also increases the number of tasks expected of people, which often causes pressure. For organizations, digitalization has improved the availability of information across organizational hierarchies, which has increased productivity but also placed greater demands on employees. At the same time, digitalization has changed the nature and content of work. Increasingly, work is based on digital platforms and systems, which enables working independently of time and place. This development has increased flexibility and given employees more opportunities to manage their own time, but at the same time it has blurred the boundaries between work and leisure time (Cijan et al., 2019, pp. 4-5).

However, constant availability can also lengthen the working day and blur the boundaries between work and private life. Many highly educated workers in Western countries report longer working weeks, while younger workers often struggle with underemployment. For freelancers and platform-based workers, time management is even more limited, as clients often dictate deadlines and schedules. These workers often have to work irregular hours, adhere to tight schedules, and carry the extra burden of unpaid tasks, which reduces the real flexibility promised by digital work (Charles et al., 2022, p. 27).

Digital work has also increased exhaustion. Numerous remote employees say they feel burnt out, and they describe difficulties with the line between work and private life coming undone. With the rapid move to online communication, especially in the form of video calls and chat apps, work has become more demanding. Young employees seem to be particularly affected in this regard, as they tend to feel lonelier, lose motivation, and have less developed professional networks early in their careers. At the organizational level, the reduction of informal communication has made collaboration and innovation more difficult, despite the fact that some organizations are trying to use new digital solutions to support the social side of work and collaboration (Charles et al., 2022, p. 27).

Digital employment can expand opportunities, but it also carries risks of inequality and discrimination. Studies show that many platform workers face prejudice based on nationality, gender, or ethnic background, and some workers, especially those from non-Western countries, are excluded from better-paid jobs. The algorithms that mediate this work are often opaque, raising concerns about fairness and accountability. Workers also report difficulty understanding how their data is collected or used, leaving them with little opportunity to challenge decisions that affect their livelihoods. Unfair task allocation, sudden account deactivation, and exposure to harassment highlight the vulnerability of many digital workers, especially women (Charles et al., 2022, p. 28).

The main groups at risk of exclusion in the digital economy are refugees, undocumented migrants, ethnic minorities, and people with disabilities. Despite international agreements recognizing their right to work, access to formal employment remains very limited for these groups. Although digitalization could create new opportunities, many remain excluded because national policies limit their ability to participate equally in the labor market. The same applies to ethnic minorities. Digital technology can create new opportunities by connecting disadvantaged groups to remote work, ethnic minorities are often underrepresented in higher-level digital professions. Many of them are concentrated in lower- or mid-level digital jobs, which limits their ability to reap the full benefits of digitalization. The last group is people with disabilities, who often face discrimination and barriers in the labor market. Digitalization and remote work can create new opportunities for inclusion, but equal access to decent employment is still far from guaranteed (Charles et al., 2022, p. 35-37).

2.1.1 Intensified work and constant connectivity

The digitalization of MNCs has enabled a high level of global connectivity and real-time coordination between organizational units, customers, and markets (Bhandari et al., 2023, p. 2). While this kind of networked digitalization improves coordination at the organizational level, it also increases the demands of work by accelerating the pace of cross-border information flow and raising expectations for constant responsiveness (Cantwell & Shukla, 2025, p. 10). The need to constantly coordinate and synchronize work across different time zones can increase the pace and time pressure of work, adding to the demands of digitally networked multinational work environments (Bhandari et al., 2023, p. 2).

At the same time, digital globalization is increasing pressure on multinational companies to rapidly develop new digital capabilities, as traditional advantages of internationalization are losing their effectiveness in digitally networked environments. Digital resources can improve global coordination, but they are expensive to acquire and require continuous learning and adaptation, which can increase the workload of employees working

in international operations. In addition, higher levels of internationalization can increase the complexity of coordination and the risks of digital connectivity, adding to time pressures and expectations of constant availability in globally integrated work environments (Bhandari et al., 2023, p. 7). These increased coordination and availability requirements also create a basis for cognitive strain, as employees must constantly process and prioritize information in fast-paced, digitally networked work environments (Hürtgen & Vogel, 2023, p. 45).

In Nordic MNCs, the intensification of digitally connected work must be understood within the specific institutional and cultural context of Nordic working life. Historically, Nordic employers and labor market actors have approached technological change as a means to improve productivity and working conditions through cooperation, skills development, and inclusive adjustment processes (Alsos & Dølvik, 2021, p. 22). However, the current phase of digital transformation is reshaping work in ways that challenge these established practices. In globally integrated Nordic MNCs, digitalization has increased expectations for continuous upskilling, adaptability, and employee mobility, while simultaneously intensifying individualized performance demands, particularly among white-collar employees (Alsos & Dølvik, 2021, p. 28). Rather than leading primarily to upward occupational mobility, digital work has increasingly required employees to manage higher levels of responsiveness, availability, and self-directed learning within existing roles. At the same time, constant digital connectivity and cross-border coordination expose employees to sustained time pressure and reduced temporal boundaries between work and non-work (Alsos & Dølvik, 2021, pp. 22–28).

Although the Nordic model of industrial relations has traditionally mitigated the negative consequences of restructuring through collective agreements and strong worker participation, the growing pace of digital coordination and availability demands in multinational settings places new strain on these arrangements. As a result, even in Nordic MNCs, often considered well-equipped to manage digital change, the intensification of

work and expectations of constant connectivity represent emerging job demands with potential implications for employee well-being (Alsos & Dølvik, 2021, pp. 22–28).

2.1.2 Information overload and cognitive demands

Information overload refers to a situation in which the amount of available and potentially relevant information exceeds an individual's ability to process it effectively, hindering decision-making and performance. A reasonable amount of information can improve accuracy and efficiency, but too much information leads to cognitive overload and impaired performance because individuals are unable to integrate and evaluate all the information they receive. In the digital age, information overload has once again become a significant challenge for organizations due to the explosive growth of data and digital communications, especially in complex work environments (Horlings et al., 2023, pp. 222-223). Information overload is illustrated in the Figure 1 below.

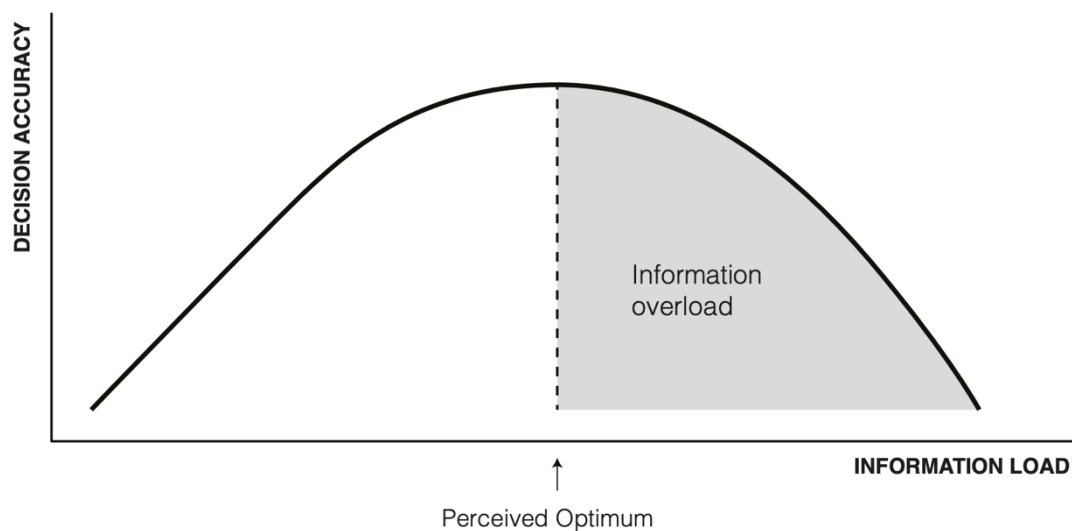


Figure 1. Information overload as an inverted U-curve (Horlings et al., 2023, p. 223).

Figure 1 illustrates the inverted U-shaped relationship between information load and decision accuracy, showing that performance improves as information increases up to an optimal point, after which additional information leads to information overload and

declining decision quality. Research on information overload emphasizes that perceived information load is influenced not only by the volume of information but also by its complexity. Rather than reflecting the sheer amount of information, information load refers to individuals' subjective experience of processing demands. To maintain decision quality, organizations must therefore enhance their information-processing capabilities without increasing perceived cognitive burden, which is shaped by the interaction of people, organizational practices, and digital tools (Horlings et al., 2023, p. 223).

In MNCs, the use of multiple digital platforms can generate information overload and frequent digital interruptions, which increase cognitive demands on both managers and employees. When attention is fragmented across numerous platforms, individuals may struggle to process information effectively, leading to multitasking, reduced focus, and cognitive strain (Li et al., 2022, p. 1822). Studies on multinational companies emphasize that internationalization is often associated with increased complexity and overload of information, especially at the management level. Studies on senior management heterogeneity suggest that while diverse perspectives can help organizations cope with complex information environments, high heterogeneity can also hinder communication, increase conflict, and complicate decision-making processes. Such coordination challenges can further increase cognitive demands in digitally mediated and internationally dispersed work environments (Cuypers et al., 2022, p. 487).

In Nordic MNCs, where digital tools are widely adopted and knowledge-intensive work is common, the experience of information overload and cognitive strain is closely linked to the region's highly digitalized and participatory work environments. Recent studies on digitalization in large Nordic manufacturing and service firms show that while digital tools enhance efficiency and autonomy, they also increase cognitive demands due to intensified individual responsibility for managing complex information flows and continuous upskilling (Alsos & Dølvik, 2021, pp. 28-30). However, consistent with the Nordic model, broad employee participation and strong union involvement have helped mitigate these pressures, as inclusive communication structures and trust-based

management practices enable employees to voice workload concerns and influence digital transitions (Berg et al., 2023, pp. 36-37).

2.1.3 Blurred work–life boundaries in digital and remote work

The 2020 coronavirus pandemic rapidly changed working practices around the world. Companies had to make changes, resulting in employees being transferred to work from home. This change brought new health and safety threats, as employees' work-life balance was disrupted and the use of information and communication technologies increased significantly in work environments. As remote working has become more common, research on the topic has also increased in the technology sector. According to studies, remote working has changed how employees interact, cooperate, and engage with the company itself. Remote working naturally has its advantages and disadvantages. The advantages include for example job satisfaction, flexible working hours, increased independence, and time and money saved on commuting. In contrast, the disadvantages include job overload, work-home conflicts, social isolation, psychological distress, and a feeling of not belonging to the work community (Camacho & Barrios, 2022, p. 441).

Remote work has brought with it a new and unique work environment that places different demands on employees. If these demands are not managed effectively, they can cause stress. Remote workers experience particular stress when they feel that their work ability is not sufficient to cope with new ICT demands in a healthy way. This stress is also known as technostress (Camacho & Barrios, 2022, p. 441).

In Nordic MNCs, the rise of remote and digital work has raised concerns about the blurring of boundaries between work and private life, even in working life models that have traditionally been known for strong employee protection. Experience in the Nordic countries suggests that the widespread adoption of remote work during and after the COVID-19 pandemic is likely to lead to more permanent changes in the organization of work, although there is still little information on the long-term effects on occupational health and well-being. Remote work and digital meetings can reduce commuting and increase

flexibility, but they also extend work into private life, particularly in the form of technology-enabled work tasks outside regular working hours, which may increase work-family conflicts depending on how such arrangements are managed (Alsos & Dølvik, 2021, p. 51).

In addition, in Nordic MNCs, new digital technologies and remote working arrangements typically increase work demands, such as the pressure of remote working, information and communication technology requirements, and expectations of constant responsiveness, even among highly educated workers who otherwise benefit from work flexibility and autonomy (Alsos & Dølvik, 2021, p. 78). At the macro level, these trends are part of a broader economic and technological structural change, in which uncertainty in investment patterns and changing global conditions further complicate the impact of digital and remote work on employment and working conditions in Nordic export-oriented companies. As a result, the blurred boundaries between work and private life in digitally networked Nordic MNCs are a growing challenge to employee well-being, requiring careful institutional and organizational management to preserve the strengths of the Nordic working life model (Alsos & Dølvik, 2021, p. 12).

2.1.4 Technostress as a cumulative digital job demand

Technostress can be understood as a cumulative demand of digital work that arises from long-term exposure to intense work, constant connectivity, information overload, and the blurring of boundaries between work and private life. It can lead to things like burn-out, emotional exhaustion, and even depression (Rademaker et al., 2025, p. 430). In Nordic MNCs, the introduction of advanced digital technologies has also led to an increase in work-related stress associated with the use of technology, commonly referred to as technology-related stress (Alsos & Dølvik, 2021, p. 47).

Technostress is caused by the use of technology, which typically has negative consequences for people's actions, attitudes, and psychological functioning. The negative effects of technostress on psychological outcomes are significantly greater than its effects

on behavioral outcomes. People consider this an adaptation challenge if they have difficulty keeping up with the demands of information technology. The use of information and communication technology in the workplace is directly linked to constant availability and information overload, which are two significant sources of stress. The three most significant characteristics of technology and technologically stressful workplaces are lack of knowledge, changes in work environments, and high dependence on advanced communication and information technology (Kumar, 2024, p. 4). According to Kumar (2024, p. 2), there are five types of different technostressors. These are techno-overload, techno-complexity, techno-invasion, techno-uncertainty, and techno-insecurity. Descriptions for all these technostressors are shown in Table 1 below.

Table 1. Technostressors (Kumar, 2024, p. 2).

Technostressors	Description
Techno-Overload	<p>Overload related to work tasks and responsibilities, which technology can exacerbate or alleviate. Technology overload can reduce job satisfaction and increase stress.</p> <p>Three dimensions of technology overload:</p> <ol style="list-style-type: none"> 1) System overload: Technology is too complex for simple tasks. 2) Information overload: Excessive amounts of information exceed a person's processing capacity. 3) Communication overload: Excessive technology-related interruptions at work.
Techno-Complexity	<p>Complex technological applications and systems can pose challenges. In addition, more advanced technology can lead to employee frustration and thus reduced efficiency.</p>
Techno-Invasion	<p>The intrusion of technology into employees' private lives. Constant connection to technology can blur the boundaries between work and private life, increase stress, and undermine the work-life balance.</p>
Techno-Uncertainty	<p>Constant technological updates cause tension and anxiety. Employees who need help keeping up with technological developments may doubt their skills and career prospects.</p>
Techno-Insecurity	<p>Technology can increase resistance and tension among employees who feel it threatens their jobs.</p>

The effects of technostress differ over time based on the theory of stress adaptation. This is influenced by the duration of stress, the individual's appraisal, and adaptation to stress. If a person adapts to a stressor, or the stressor ceases, stress can return to its baseline level. However, if stressors continue or a person does not adapt to them, stress increases and three different effects on the person may occur. The first is the synchronous effect. This includes a temporary effect in which the highest stress factors are linked to stress occurring at the same moment. Secondly, there is the delayed effect. This takes into account the effects of stress that take time to manifest and develop due to the cumulative exhaustion of a person's resources. Thirdly, the reverse cause-and-effect relationship, in which stress at a certain point in time is considered to predict stress factors at a later point in time. However, regardless of these significant insights, most studies related to technostress examine the impact of technostress at only one point in time, using cross-sectional approaches. For this reason, it has been suggested that the process between stress and stressors should be studied using longitudinal studies. This is because stressors have varying incubation periods before they manifest as stress in an individual (Camacho & Barrios, 2022, p. 444).

Since technostress has very broad consequences and effects, it is advisable to combat it in a variety of ways. Figure 2 illustrates different methods that can be used to manage technostress. In order to manage technostress effectively, a clear strategy must be developed at both the personal and organizational levels (Kumar, 2024, p. 13).

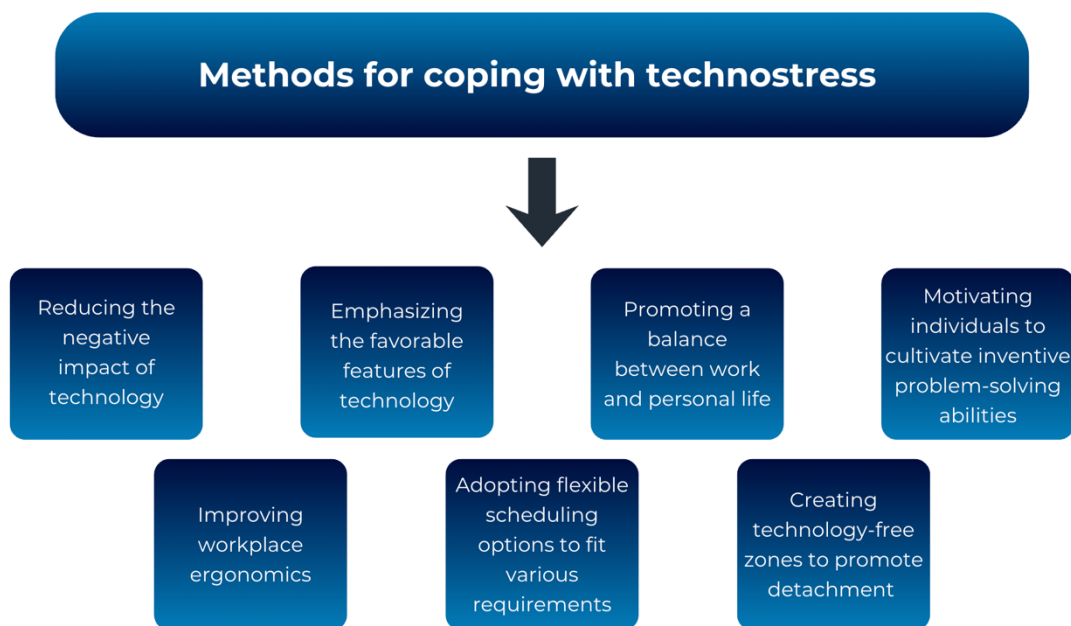


Figure 2. Methods for coping with technostress.

To achieve coping with technostress, the influence of technology creators must be reduced. This can be done, for example, by reinforcing technology barriers, such as restricting the use of technology and limiting excessive use of digital stimulation. In addition, comprehensive technology education should be provided to everyone to help reduce digital addiction. Managing technostress also involves highlighting the beneficial aspects of technology, promoting a healthy work-life balance, and encouraging people to develop creative problem-solving skills. On a practical level, technostress can be combated by implementing ergonomic improvements in the working environment, offering flexible scheduling solutions that meet different needs, and establishing technology-free zones to promote disconnection (Kumar, 2024, p. 13).

2.2 Digital work resources and employee well-being in MNCs

This section explains the main types of digital work that are conducive to well-being for Nordic MNCs, with particular focus on digital flexible working models, digital collaboration in the workplace, and Nordic corporate culture and values as sustainable digital

work. The chapter concludes with a discussion on the importance of providing continued or increased levels of organizational support for the well-being of employees engaged in digital work.

2.2.1 Flexibility and autonomy

Digitalization has changed work in ways that bring both benefits and risks to the quality of work. Flexible working arrangements, such as remote working and flexible hours, are considered one of the primary benefits of digital work but the importance of these benefits is often overlooked by groups that face barriers to accessing decent employment, such as those unable to work on a full-time or fixed schedule. Studies demonstrate that, especially for women who are returning to the workforce after having children, flexible work arrangements can facilitate their participation in the labor market. Additionally, flexible working arrangements improve productivity and enhance the well-being of employees. Employees with high levels of control over their work hours, for example, demonstrate increased efficiency, reduced stress, greater motivation and a stronger connection to both colleagues and resources available at their workplace (Charles et al., 2022, p. 26).

The rise of mobile tech has given employees more freedom to stay connected and organize their work in a more flexible way. This has improved communication and allowed many employees to better balance their work with their personal needs. For example, during the COVID-19 pandemic, remote work and staggered working hours became common solutions that supported business continuity and gave employees more control over when and where they work (Charles et al., 2022, p. 27).

Digitalization is a way to speed up work, primarily by streamlining business operations, reducing the number of manual tasks, and producing more accurate results. In addition, digitalization helps improve real-time reporting by utilizing business data more effectively and combining multiple data sources simultaneously. For employees, automation of routine tasks can enhance job satisfaction by freeing time for more meaningful work

and opportunities to develop new skills. In addition, standardized digital systems support stronger compliance and make data management and recovery more reliable (Parviainen et al., 2017, p. 67).

In Nordic MNCs, companies value both flexibility and autonomy, which reflects the Nordic cultural values of trust, equality and participatory decision making, or the Nordic Way to work. Applications like remote work solutions, cloud-based collaboration tools, and flexible work schedules allow employees to manage their responsibilities effectively while balancing both work and personal obligations. Autonomy through the use of these types of digital tools results in higher job satisfaction and employee with both employee engagement and a sense of control over their work (Alsos & Dølvik, 2021, p. 49).

Moreover, flexibility enables employees to optimize their productivity by choosing the times and environments that best support focus and creativity. Such freedom not only enhances performance but also contributes to stronger well-being, as employees are able to integrate work more harmoniously into their daily lives. In this way, digitalization serves as a significant job resource within the JD–R framework, reinforcing employees' intrinsic motivation and promoting sustainable work practices that benefit both individuals and organizations (Alsos & Dølvik, 2021, p. 49).

2.2.2 Digital collaboration, social support and skill development

Studies confirm that digital technology makes work more efficient, and about two-thirds of employees report that digitalization has accelerated their work pace. Automation allows employees to focus on more complex tasks, but this change also brings new pressures and expectations. At the same time, digitalization is reshaping competitive environments, promoting the rise of agile, software-based business models such as Airbnb, and forcing traditional companies to rethink their structures and strategies. These changes affect not only business but also job tasks, satisfaction, independence, and work-life balance (Cijan et al., 2019, pp. 4-5).

The growing use of digital technologies offers multinational companies' new opportunities to enhance collaboration, communication, and inclusion across borders. To fully benefit from these developments, organizations are encouraged to rethink their HR and communication practices to better align with digital work environments. This includes developing policies that support effective virtual collaboration, such as guidelines for digital communication, mentoring, and teamwork. Digital platforms like video conferencing and collaborative software facilitate real-time interaction and knowledge exchange, strengthening global networks and cooperation among employees. Research highlights that well-designed virtual teamwork fosters responsiveness, transparency, and feedback, enhancing mutual trust and inclusion even in the absence of face-to-face contact. Within global organizations, such practices not only maintain cohesion but also promote a shared organizational culture across diverse locations. Embracing digital technologies in global operations can enhance engagement and connection among employees, creating more adaptive and inclusive workplaces (Bucher et al., 2025, p. 13).

In digitally connected organizations and MNCs, social support and effective virtual leadership play a crucial role in maintaining employee well-being. Within hybrid and geographically dispersed teams, supportive leadership and peer relationships can act as buffers against digital stress by fostering trust, open communication, and psychological safety. When leaders actively communicate, provide feedback, and show empathy in virtual settings, employees experience stronger social connectedness and a sense of belonging, despite physical distance (Bucher et al., 2025, p. 2).

From the perspective of the JD-R model, social support and virtual leadership represent essential organizational resources that promote employee engagement and resilience in digitally mediated work settings. Empirical evidence indicates that strong social support networks can buffer against emotional exhaustion and sustain engagement, even in high-pressure environments. Consequently, fostering a culture of trust, open communication, and supportive digital interaction is vital for enhancing motivation and preserving well-being within hybrid and virtual teams (Kunzelmann & Rigotti, 2021, p. 311).

Furthermore, studies on virtual teams show that resilience is not just an individual ability, but a collective process that is actively built through social interactions and shared practices in digitally mediated work environments (Degbey & Einola, 2020, pp. 6-7). The findings highlight that supportive social relations and proactive sensemaking function as critical team-level resources that help employees recover from strain and maintain well-being in virtual environments (Degbey & Einola, 2020, p. 23).

In Nordic MNCs, digitalization has continued to accelerate in the post-pandemic period, driving innovation and supporting a steady economic recovery across the region. For multinational companies, this period has emphasized the importance of developing digital collaboration, skill mobility, and inclusive work practices to support long-term adaptability. Public policy and corporate initiatives in the Nordic countries have increasingly focused on promoting continuous learning and digital competence, recognizing that these are essential for sustaining employability and innovation in the evolving digital economy (Alsos & Dølvik, 2021, p. 13).

2.2.3 Organizational support and Nordic organizational values

Managing work-life balance and digital challenges depends on the individual. However, studies have shown that hybrid working, for example, is more popular than full-time remote working. It is therefore important that managers and human resources adapt to changes in tasks related to remote working. It has also been found that managerial support for work-life balance is particularly important and has helped employees improve their quality of life and find a good work-life balance. In addition, governments can decide to make changes related to work-life balance. One significant example would be to introduce a "right to disconnect" law, similar to those in force in the Philippines and France, which gives employees the freedom to not answer work-related communications and requests outside of working hours. Promoting healthy working habits, such as frequent breaks and regulated working hours, enables employees to distinguish between work and non-work activities. In order to achieve a work-life balance in the post-coronavirus world, employers should consider and plan ways to support the well-being of their

employees. These include, for example, providing employees with clarity and promoting a work culture based on trust and results. This helps keep employees motivated and sustain their productivity. This is why work-life balance in the post-pandemic world should be brought to the attention of both employers and employees and taken into account when planning changes in operating practices that are useful for businesses and their employees (Vyas, 2022, pp. 161-162).

However, it has been noted that organizations have struggled to offer employees sufficient support in balancing remote work and their work-life balance. This has been influenced by an increase in the amount of time spent at the computer, an increase in the intensity of work, the constant strain of technology overload, and more pronounced role tensions. These are all real problems associated with remote work. Therefore, it is very important to find appropriate management techniques to solve these problems in companies (Bhat et al., 2023, p. 11).

The Nordic working life model has long supported equality, social trust, and general well-being, while enabling high adaptability and competitiveness among employees and companies (Torp & Reiersen, 2020, p. 16). Organized working life, public welfare policy, and economic management have enabled a highly functioning working life, minimal wage gaps, expertise, welfare systems, and fiscal policy. In addition, the Nordic model has promoted decentralized decision-making, strong cooperation, and mutual respect for rights and responsibilities. Trust between managers and employees has also been promoted at both the national and corporate levels. In addition, the Nordic management model gives employees the opportunity to actively contribute to discussions on financial performance and targets in the work environment (Berg et al., 2023, pp. 25-26).

It has also been noted that in the in Nordic contexts, where autonomy and trust have historically been key features of employment relationships, remote work can simultaneously increase perceived freedom and strengthen individual responsibility for managing availability, performance, and the boundaries between work and leisure time (Alsos &

Dølvik, 2021, p. 78). In Norway, for example, employee participation and trust are probably the most important explanation for the creation of wealth and high productivity in companies. This, in turn, leads to the general well-being of the population, as companies can then pay their employees fair and consistent wages (Torp & Reiersen, 2020, p. 7). From the JD–R perspective, Nordic cultural and organizational values function as macro-level job resources that enhance both individual and collective well-being. Trust, equality, and participative decision-making foster autonomy and psychological safety, enabling employees to manage demands effectively and sustain motivation and engagement (Torp & Reiersen, 2020, pp. 5-6).

Although there are differences in all leadership styles and behaviors, it has been found that Nordic leaders have certain characteristics in common. These characteristics include, for example, consensus-based decision-making, democracy, emphasis on equality, and informality. It has also been noted that Nordic leaders trust their colleagues and subordinates more than leaders in other countries. In the Nordic countries, the specific characteristics of leadership styles and their democratic and, to some extent, flat hierarchies are expected to reinforce each other. This, in turn, leads to employees being able to use their voice and promote well-being. Still, in this area, the debate is always about how much the institutional context affects an organization's practices (Berg et al., 2023, p. 27).

In conclusion, digital work resources such as flexibility, collaboration, social support, and strong organizational values play a key role in promoting employee well-being in Nordic multinational companies. Together, these factors show that digital transformation not only create new demands, but also offers significant opportunities for growth, commitment, and sustainable work (Torp & Reiersen, 2020, pp. 5-7). The following section presents the theoretical framework underlying this study, the JD-R model, which combines these insights into a comprehensive understanding of employee well-being in digitalized work environments.

2.3 Theoretical framework: The JD–R perspective on digital work

This chapter presents the theoretical framework of this thesis, which is the Job Demands-Resources model. The chapter introduces how JD-R model is applied to technology use, explains the digital job demands and resources in the workplace, and applies the JD-R model into Nordic MNCs.

2.3.1 The Job Demands-Resources Model

Digitalization has fundamentally transformed how work is structured, experienced, and managed in MNCs. While it offers organizations efficiency and innovation, it simultaneously introduces new psychosocial challenges that affect employee well-being. To examine these dynamics, this study applies the Job Demands–Resources (JD–R) model. The JD-R model combines the results of both stress and motivation research. It shows that job demands can lead to stress and health problems, while job resources support motivation and commitment. The model also explains how these factors interact to affect key work outcomes (Demerouti & Bakker, 2011, p. 1).

JD-R model can be used to explain both the positive and negative effects of digitalization on employee well-being. The model shows how high digital demands, such as constant connectivity, can cause stress, while resources, such as flexibility and autonomy, can support motivation (Kumar, 2024, p. 11). An excellent illustration of how communication via email or teams can create overload and fatigue is because employees feel pressured to reply via email, and so they are also constantly having to respond between the two. On the other hand, flexible scheduling methods are an example of how digitized platforms can foster autonomy and motivate employees to manage their tasks themselves. Job demands refer to what has to be done at a job. Job demands are not negative by nature but can become sources of stress at work if substantial effort is required to provide satisfaction. This can result in negative effects like anxiety, depression or burnout. Job resources, in contrast, are the social, psychological, physical and organizational aspects of an employee's job that help an employee meet job demands, accomplish job goals, and

facilitate personal growth and development. These resources not only alleviate stress but also increase motivation and development. Examples include performance feedback, support from colleagues, and coaching from supervisors (Schaufeli & Bakker, 2004, pp. 295-296).

The JD-R model is highly relevant in today's corporations, which rely heavily on technology and where the widespread use of technology in the workplace brings with it a variety of distinct issues (Kumar, 2024, p. 11). The Figure 3 below shows how JD-R model is applied to technology use.

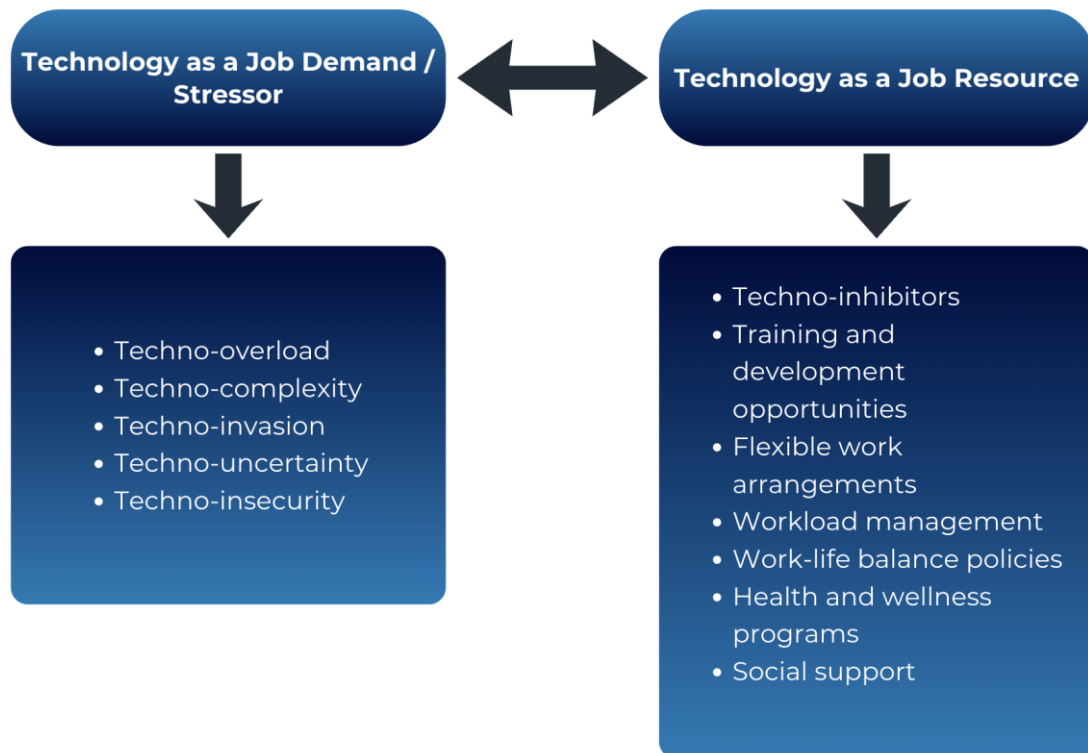


Figure 3. JD-R model applied to technology use.

The Figure 3 shows with JD-R model that technostress is a job demand that requires full-time effort and can also cause distress if not controlled appropriately. In general, in the technological context, different concepts and definitions of technostress are applied to job demands. An in-depth analysis of the frameworks of many concepts and definitions

can provide insight into the development of technostress. Previously, technostress was described as a "modern state of adaptation" and highlighted the challenges people face in adapting to technological developments. Recently, researchers have broadened this definition to include the emotional and mental impacts of technological development, the importance of the office environment in the development of technostress, the possible negative effects of overuse of technology on a person's well-being, and the demands and resources of a person's job environment. As can be seen, these concepts emphasize the complicated nature of technostress and encourage comprehensive research into its effects and scope (Kumar, 2024, p. 12).

2.3.2 Digital job demands and resources in the workplace

Digital technologies impact both the total amount of jobs created and how people perceive and perform their jobs (Charles et al., 2022, p. 15). Designation of digitalization combine using tools in business and society. It means accepting the new tools along with the transformation the tools subsequently create. Digitalization provides a new way for all people, businesses, and everyday objects to interact and function with each other. Digitalization has changed the ways that we interact as individuals, how we communicate with each other, and how we work with each other. The introduction of these new technologies has continually changed, for example, how people, businesses, and individuals conduct themselves, create new opportunities for people, provide challenges to people, add job security and create new jobs, create new markets, enhance sustainability and ergonomics, and enhance occupational safety (Cijan et al., 2019, p. 4).

The use of automation in organizations can increase the efficiency of certain tasks but will make some jobs redundant. This can leave many employees vulnerable to job loss. Furthermore, if an organization expects staff to be consistently available via digital devices, it can blur the boundaries between work and home life, thus causing employees to suffer from increased stress and greater risk of experiencing burnout (Schaufeli & Bakker, 2004).

Digitalization has altered conventional work practices in terms of increased flexibility and mobility. Remote work, whether as an employee or a freelancer, has become a common feature of modern working life. Before the COVID-19 pandemic, only a small proportion of employees in Europe and the US regularly worked from home, but studies suggest that many jobs are in fact suitable for remote working. Remote work is particularly common among self-employed people, who have greater freedom to choose where and how they work. In general, occupations that require higher digital skills are also more likely to offer opportunities for remote or hybrid work, highlighting the close link between digitalization and new ways of organizing work (Charles et al., 2022, p. 20).

At the same time, digital tools can act as valuable job resources. For instance, collaboration platforms like Microsoft Teams or Slack enhance knowledge sharing and peer support across geographically dispersed teams, strengthening social connectedness and engagement. Within multinational enterprises, they simplify and accelerate internal processes, reducing costs and increasing responsiveness to changing demands. Externally, evolving regulations, heightened social expectations, and shifting consumer behavior, intensified by the COVID-19 pandemic, have opened new avenues for applying digital solutions across production, marketing, logistics, and communication. As a result, firms are increasingly developing digital strategies that reshape traditional business models and redistribute activities and responsibilities across partners, customers, and stakeholders both domestically and globally (Meyer et al., 2023, p. 577).

Digitalization is transforming business environments worldwide, not only in technologically advanced economies but also in emerging markets, where it creates opportunities for growth and expansion. Even with unequal access to technology, digital tools allow firms to reshape distribution channels, influence consumer behavior, and shift patterns of demand. Companies can benefit from wider access to resources, expanded market reach, and faster communication. At the same time, digitalization also brings challenges, such as quicker loss of competitive advantage, new types of risks, and an increasing dependence on powerful buyers and digital platforms (Meyer et al., 2023, p. 578).

2.3.3 Applying the JD-R model to Nordic MNCs

In the Nordic countries, digitalization has reshaped employment patterns in ways that reflect both the strengths and challenges of the region's labor market model. Supported by advanced digital infrastructures, strong welfare arrangements, and active collaboration between employers, unions, and policymakers, the transformation of work has unfolded differently compared to many other regions. In sectors such as retail, banking, manufacturing, and other areas of tangible goods production, digitalization has increased efficiency and productivity, but at the same time slowed employment growth. Conversely, service industries, particularly knowledge-intensive and high-skilled professions, have seen a notable expansion, creating new opportunities and contributing to rising female participation in the labor market. These developments have actually enhanced some of the egalitarian values that are central to the Nordic model. In particular, with respect to gender equality and access to work. That said, however, the benefits of digitalization have not been distributed evenly among workers, since those workers in routine or lower-skilled jobs continue to face challenges with an increasingly automated workplace and experience more uncertainty regarding their career opportunities than ever before. When it comes to workers in these kinds of roles, digitalization can lead to an increase in job insecurity, fewer opportunities for professional growth, and increasing pressures to adapt to changes in technology, compared to those in higher-skilled roles and industries. In terms of worker well-being, this reflects the fact that while some groups are empowered or benefit from equity due to digitalization, other groups are adversely affected by job stress, instability, and exclusion as a direct result of digitalization (Charles et al., 2022, p. 13).

Studies show that digitalization can lead to both job losses and new employment opportunities for men and women in roughly equal measure. However, the results depend on gender differences in different sectors and occupations. Women may benefit slightly more from the job growth generated by digitalization, particularly in healthcare, social services, and retail, where women are strongly represented. At the same time, declining demand for male-dominated occupations may increase competition between men and

women for similar jobs, which could put pressure on wages and even drive some women out of the labor market (Charles et al., 2022, p. 31).

Due to their advanced digital infrastructures and consumer openness to innovation, the Nordic countries are often viewed as excellent arenas for testing digital business models. Yet, MNCs face a unique set of challenges when operating in this region because of the different languages and consumer behaviors in each country that necessitate different marketing, delivery and payment approaches. The need to adapt constantly creates added pressures on employees as they try to reconcile technological innovation with their own organizational and cultural flexibility. On the positive side, the rapid adoption of digital solutions offers employees opportunities to learn new skills and perform more meaningful work. On the negative side, digitalization can increase the workload, time pressure and stress level of employees associated with meeting customer expectations for speed and seamlessness of service. Therefore, the dynamics of the Nordic model of digitalization reveal that while the Nordic region creates an environment that is conducive to innovation, it presents new challenges that will affect the well-being of employees in MNCs operating globally (Melnyk, 2019, p. 11).

Digitalization in the Nordic countries is closely tied to social, economic, and environmental development. With equal access to digital technologies supported by a strong digital strategy across the region, the Nordic region has become a global leader in areas such as Smart City Solutions and Advanced Manufacturing. Automation and digital tools have increased productivity and sustainability, but businesses remain challenged with adoption to the same degree based on company pace of adopting new technologies. Companies that move quickly to adopt technology may create pressure on employees working for companies adopting technology at a slower pace. Overall, the Nordic model demonstrates both the opportunities of digital innovation for growth and quality of life, and the need to carefully manage the human side of digital transformation to support employee well-being (Melnyk, 2019, p. 15-16).

Figure 4 gives a conceptual overview of some key factors and considerations from current research. Although the list is not exhaustive, it addresses some key areas that an organization will need to consider in the future when managing psychosocial working conditions. The figure also draws a distinction between job demands, which are generally seen to be challenges, and job resources, which can be viewed as either potential stressors or opportunities for growth, depending on how they are managed. Some of the factors within the conceptual overview, such as autonomy and learning opportunity, can vary by job demand and job resource. For example, high learning goals can be positive when employees are provided sufficient autonomy and support, as they will enhance competence, self-confidence and development. Without sufficient resources, however, the same demands may become burdensome and negatively impact well-being (Alsos & Dølvik, 2021, p. 50).

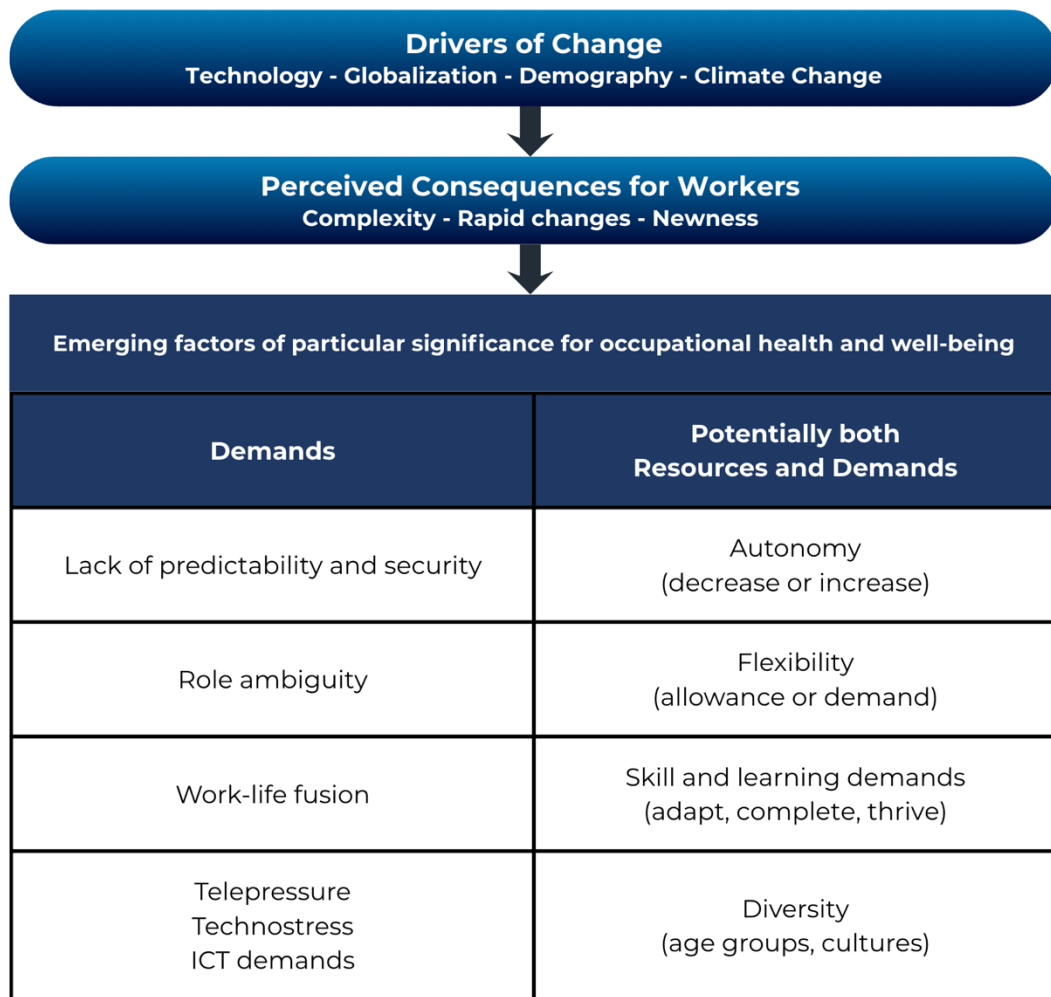


Figure 4. Factors of particular significance for the future of the working environment (Alsos & Dølvik, 2021, p. 50).

The JD-R framework gives a full overview of how technology impacts employees working for Nordic MNC's by combining two frames of reference. Digital demands, which include things like ongoing access to communication and the speed with which information is processed digitally to cause cognitive overload. On the other hand, resources, which include things like autonomy, flexibility in the workplace, and support from coworkers, which help employees to be fully engaged with their work and provide them with the resiliency to withstand the challenges presented by new forms of work due to technological advancements. Macro-level factors that promote a high level of trust, equality, and participatory leadership within the organization allow them to mitigate the negative

effects of technology, while maintaining high levels of motivation among employees. In summary, the JD-R framework illustrates how the interaction between digital demands, resources, and the Nordic organizational setting work together to promote long-term positive employee well-being and positive performance in an increasingly digital world (Alsos & Dølvik, 2021, p. 50).

2.3.4 Summary of theoretical framework

Based on the key themes identified in the literature review, this study develops an integrated theoretical framework that explains how digitalization affects employee well-being in Nordic MNCs. The framework is based on the JD-R model and combines four key factors identified in previous studies, which are digital job demands, digital job resources, contextual factors in Nordic multinational companies, and employee well-being outcomes. See the theoretical framework in Figure 5.

Digitalization affects employee well-being primarily through the emergence of new digital work requirements. In multinational companies operating in the Nordic countries, these demands include constant communication, information overload, blurred boundaries between work and private life in hybrid work environments, and technological stress caused by constant technological change (Tarafdar et al. 2007). These demands cause cognitive and emotional strain, which can undermine employee well-being if not balanced with adequate work resources (Demerouti & Bakker, 2011, p. 2).

At the same time, digital work resources refer to supportive factors that strengthen employees' ability to manage digital work. These resources include flexibility and autonomy, digital collaboration tools, social and managerial support, and opportunities for continuous learning. Such resources promote motivation, commitment, and flexibility and can mitigate the negative effects of digital work demands (Bakker & Demerouti, 2007).

The relationship between digital demands, digital resources, and employee well-being is shaped by the specific contextual characteristics of Nordic multinational corporations.

Key characteristics of the Nordic countries, such as trust-based management, a culture of equality, participatory decision-making, a strong employee voice, and supportive labor market institutions, act as macro-level resources that support sustainable digital work. At the same time, the international operations of Nordic multinational companies bring with them intercultural complexity, different local practices, and varying expectations that can reinforce certain digital demands (Alsos & Dølvik, 2021, p. 50).

Digital work demands and digital work resources together affect employee well-being through the health risks and motivation processes described in the JD-R model. Digital demands are expected to increase stress and reduce well-being, while digital resources improve motivation and support sustainable working practices. The results of these processes are reflected in key dimensions of employee well-being, such as work-life balance, job satisfaction, commitment, and psychological well-being (Bakker & Demerouti, 2007).

Figure 5 presents the theoretical framework developed in this study. The framework illustrates how digitalization affects employee well-being through the interaction of digital demands and digital resources in the specific context of Nordic multinational corporations.

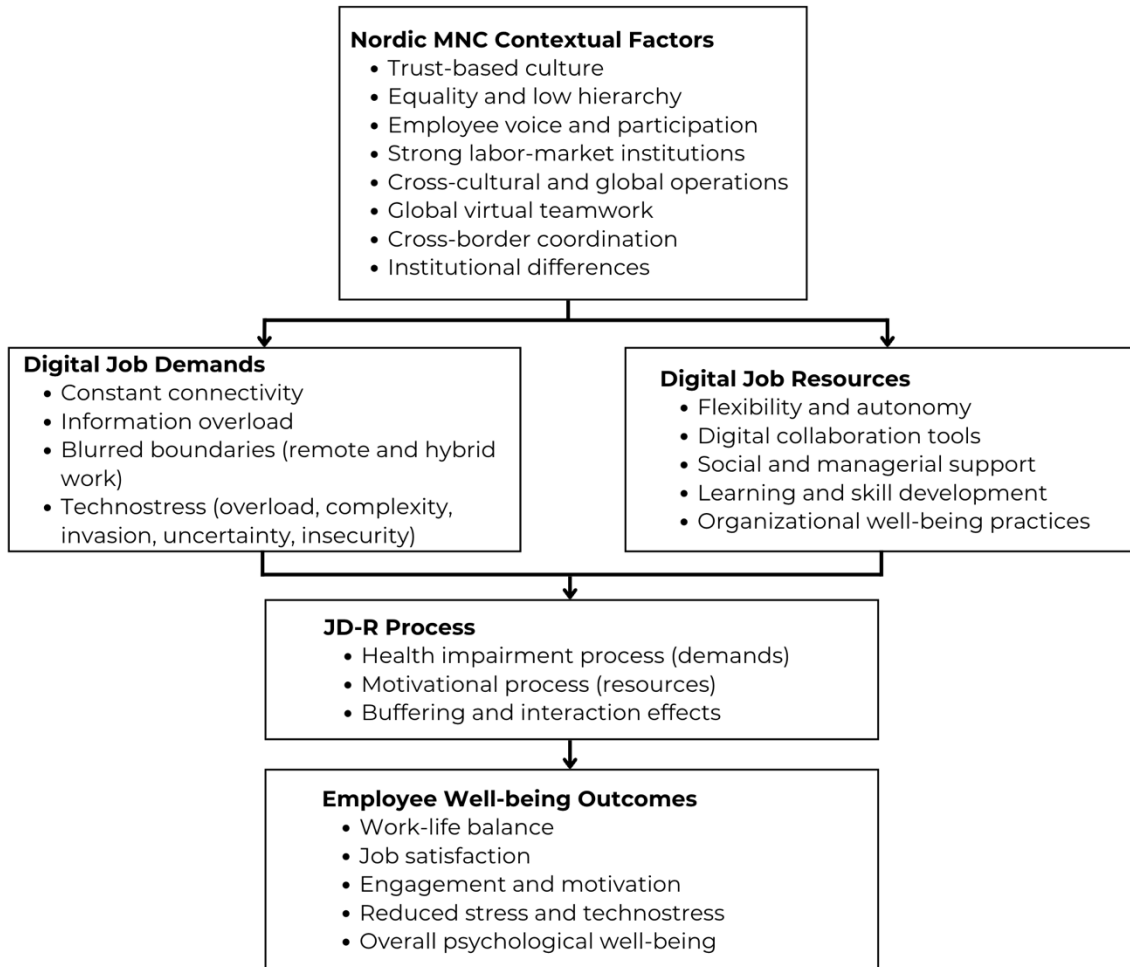


Figure 5. Theoretical framework of the thesis.

3 Methodology

This chapter introduces the research methodology. The chapter highlights the research approach, data collection methods, and sampling. Interviews and thematic analysis are used for data collection. The quality of the research is discussed at the end of the chapter.

3.1 Research approach

The purpose of this study is to understand how digitalization affects employee well-being and work-life balance in the Nordic work environment. Research designs can be divided into qualitative, quantitative, or mixed methods (Saunders et al., 2023). A qualitative research method was chosen because the purpose of the study is to understand how people experience digital work in their everyday lives. According to Aspers and Corte (2019, p. 142), qualitative research is interpretive and naturalistic, and its goal is to understand how people interpret their experiences through, for example, interviews, observations, and personal narratives. This method allows for a more in-depth exploration of personal thoughts, feelings, and situations. The study used semi-structured interviews, which asked the same core questions but still left room for each person to share their own unique perspective.

Since qualitative case study was selected, the study is structured in such a way as to provide as accurate and correct a picture as possible of how digitalization currently affects well-being at work and work-life balance. The study follows inductive logic, in which observations are generated through data-based thematic analysis (Saunders et al., 2023). The JD–R model is used to interpret the results and helps to distinguish between digital job demands and digital job resources.

Ensuring transparency in qualitative research can be challenging, especially when anonymity must be maintained. In international business studies, it is often necessary to protect the identities of both participants and organizations, especially when discussing sensitive topics (Miller et al., 2024, p. 10). Therefore, all interviewees in this study remain

anonymous to ensure confidentiality, while providing as much contextual information as possible.

Researchers should consider why qualitative research is appropriate for the study in question, as it is possible to fall into the trap of "qualitative bias" when using qualitative research. This means that all references to the researcher's background and perspective are removed from the research in an attempt to make it objective (Miller et al., 2024, p. 9).

Qualitative research methods refer to approaches that focus more on understanding the experiences of interviewees than collecting broad numerical data. Qualitative research allows for gaining deep insights that are often beyond the reach of quantitative approaches. In particular, within cross-cultural contexts, it enables the exploration of subtle nuances and meanings that can significantly shape interpretation. This method emphasizes the researcher's personal involvement and interaction with participants, making it especially valuable for understanding complex human and organizational phenomena (Miller et al., 2024, p. 7).

The most used form of qualitative research in IB studies is interviews. When conducting interviews, it is important for the researcher to consider which employees in the organization are most knowledgeable about the research topic when selecting the sample. This will ensure that the interview responses best answer the research question. IB interviews must also consider differences in meaning and language use between the interviewee and the researcher in a multilingual environment. In addition, the use of translations must be taken into account, and it must be ensured that both the interviewee and the researcher clearly understand what is being discussed (Miller et al., 2024, pp. 7-8).

3.2 Data collection and sample

To collect data for this research, semi-structured interviews were used as these provide both structure and flexibility to examine the research topic. Semi-structured interviews are conducted with a predetermined set of guiding questions and themes however, the order and wording of the guide may change as needed while conducting a semi-structured interview depending on how the interview progresses (Eriksson & Kovalainen, 2015). This flexibility allows the interviewer to ask clarifying questions, seek clarification of the meaning of what the individual is saying, and prompt the participant to provide a more detailed description of their experiences, ultimately producing specific useable insights. Semi-structured interviews are especially well suited for studies that seek an in-depth understanding of individuals' perceptions and experiences. Therefore, during these types of interviews, new or unexpected themes will naturally arise from discussions. Thus, semi-structured interviews are considered an excellent technique for exploratory research, which aims to outline how employees perceive digitalization and their level of well-being (Saunders et al., 2023).

At the same time, conducting semi-structured interviews requires careful attention from the researcher, as the interviewer's tone of voice, choice of words, and ability to create a comfortable atmosphere for open dialogue can affect the quality of the data (Saunders et al., 2023). It is therefore important to find a balance between flexibility and consistency. During the interview, it is important to ensure that all key themes are covered, while still leaving room for participants to raise new and relevant topics (Eriksson & Kovalainen, 2015).

The interview questions were developed based on the literature review and the theoretical framework of the thesis. The interview guidelines were designed based on the JD–R framework and theoretical framework of the thesis, and it included questions about the demands and the resources of digital work. The interview questions were divided into three different categories. The categories were: (1) professional background and the Nordic MNC context, (2) digital job demands and resources, and (3) employee well-being

and engagement. The interview questions were sent to the interviewees in advance for review. In addition, a pilot version of the interview was conducted to test the existing interview questions and develop them further. The interview questions can be found in the Appendix 1.

The interviews were arranged in February and March 2026. In order to avoid language barriers as much as possible, seven of interviews were conducted in Finnish, which is the native language of both the interviewer and the interviewee. Two of interviews were conducted in English. All interviews were translated into English, and it was ensured that the meaning and wording of the sentences remained unchanged in the translation (Saunders et al., 2023). All nine of the interviews were conducted online in Microsoft Teams. With the participants' approval, the interviews were recorded and transcribed using Microsoft Teams. The use of automatic transcription facilitated the interview process, as it allowed the researcher to focus on listening and guiding the conversation. The transcripts were reviewed in detail and corrected using the recordings after the interviews (Saunders et al., 2023).

Qualitative research is typically based on purposive sampling, in which participants are selected based on their relevance and experience in relation to the research topic. The goal is not statistical representativeness, but rather to obtain rich and meaningful insights from individuals who have direct knowledge of the phenomenon being studied (Marshall, 1996, p. 523). In this study, purposive sampling was used to select participants who work in Nordic multinational corporations and have varying levels of experience with digital work environments.

The Table 2 below presents the overview of the interviewees. The sample consisted of employees, HR professionals, and managers from Nordic MNCs. An appropriate sampling strategy was used to ensure that different perspectives from different roles and countries were included. The interviewees were from the following Nordic multinational corporations: Nordea, Eriksson, Danfoss, Kone, Wärtsilä, and Reaktor. The sample

included both women and men, and the interviewees had varying amounts of experience in their professional roles, ranging from a few years to around 30 years. The length of the interviews was between 27 and 49 minutes. Participation was voluntary, and all data was anonymized to ensure confidentiality.

Table 2. Overview of interviewees.

Interviewee	Code	Company	Interview length
1	1A	A	32:32
2	2B	B	41:22
3	3C	C	49:54
4	4D	D	32:14
5	5E	E	45:25
6	6B	B	27:39
7	7F	F	40:15
8	8C	C	38:31
9	9F	F	33:59

3.3 Research analysis

Thematic analysis is considered the basic method of qualitative analysis, as qualitative analyzes are usually very complex and multifaceted. Thematic analysis provides core skills that are useful when conducting another qualitative research (Braun & Clarke, 2006, p. 78). Thematic analysis can be defined as a method used to identify, analyze, and report on themes collected from data (Eriksson & Kovalainen, 2015).

The most significant advantage of thematic analysis is its flexibility. Thematic analysis can offer a detailed, yet multidimensional picture of the data. On the other hand, this adaptability can also pose challenges, as the lack of a standardized procedure sometimes leads to uncertainty about how the method should be applied. It is therefore important to maintain a balance between methodological flexibility and analytical rigor in order to ensure that the results are reliable and meaningful (Braun & Clarke, 2006, p. 78).

The data from this study was analyzed using thematic analysis following the six-step approach suggested by Saunders et al. (2023). This method allows for the identification of recurring patterns and meanings in the interviews. The process began with familiarization through repeated reading of the transcripts, followed by the creation of preliminary codes related to digital demands, resources, and well-being. The codes were then grouped into broader themes, which were reviewed and refined. The final themes were interpreted through the JD-R framework, which helped to categorize the results into digital job demands and digital job resources. This framework supported a structured but flexible interpretation of the data by combining empirical observations with theoretical understanding.

3.4 Quality of the research

Qualitative research is generally done using quite small and intentionally chosen samples of data, which allows the researcher to explore the subject matter in such detail as to gain a useful insight into the phenomenon being studied. This may, however, limit the extent to which the research findings can be generalized or replicated. Since qualitative analysis is very interpretive in nature, it is also possible for the researcher to reach different conclusions based upon their individual perspective (Gorter & Cenoz, 2024, p. 108). In most traditional quantitative studies, validity and reliability have been widely used as the criteria for quality of research. However, in qualitative research, validity and reliability should be judged more flexibly than quantitatively with greater focus being on the principle of being as transparent as possible as well as documenting one's research carefully (Saunders et al., 2023). Quality of qualitative research is commonly assessed

based upon evidence such as credibility, transparency, and consistency than only based upon traditional measures of validity and reliability (Gorter & Cenoz, 2024, p. 108).

According to Gorter and Cenoz (2024, pp. 112-113), reliability in qualitative research refers to the extent to which the results are credible and accurately describe the phenomenon under study. Reliability can be enhanced through transparent research procedures and careful documentation of data collection and analysis. Clear descriptions of the research process help readers understand how the results were obtained and enable a more reliable evaluation of the research. In qualitative research, reliability is achieved not by seeking a single objective truth, but by providing a well-founded and consistent interpretation of the research data. In addition, the quality of qualitative research is based on the clarity of the research process and the consistency between the research questions, data collection, and analysis. The reliability of the research is strengthened by a clear explanation of the methodological choices, which also helps readers understand how the conclusions were reached (Eriksson & Kovalainen, 2015).

In this study, the quality of the research was supported by careful sampling and transparent documentation of the research process. Participants were selected based on their experience of digital work in Nordic MNCs, which ensured that the data was relevant to the research questions. Reliability was enhanced by using semi-structured interviews in which participants were able to describe their experiences in detail. Transparency was supported by clearly describing the data collection and analysis procedures.

As the study utilized a qualitative research method and the size of the sample was limited, the results of this study cannot be generalized to all Nordic multinational corporations. The results were based on the experiences and perceptions of a limited number of participants and thus only provide insight into the organizational arrangement within the sample group and therefore are reflective of specific organizational context or the perspective of individual participants. There are many factors which differentiate Nordic MNCs including organizational structures, digital practices and employee work

environments that may have an influence on how the use of digital technologies impacts employee well-being in other contexts.

In addition, the data used in this study provides relevant and contextualized insight into how digital technology impacts employee well-being in Nordic MNCs. In doing so, the research has focused on those individuals with firsthand experience of working in a digital environment, providing greater insight into the mechanisms that affect employee well-being as a result of both the demands associated with working in a digital environment, and the provision of digital resources within a multinational organizations.

4 Research findings

This chapter consists of the main research findings from the interviews. The structure of this chapter is based on three themes that arose from the interview data. Firstly, the Nordic MNC work context is reviewed. After that, the digital work demands and resources in Nordic MNCs are examined. In conclusion, the effects of digitalization on employee well-being have been discussed.

4.1 Nordic MNC work context

Interview data indicates that Nordic MNCs combine international collaboration, digital means of working, and a certain degree of flexibility in their organizational structures. Participants uniformly described their work environments as global and as a result of the nature of their work, they interacted with coworkers in various countries and different time zones. Consequently, most communication was done in English, and across digital platforms, meaning less physical contact with others. This results in collaboration being decoupled from a geographical location and situated within digitally mediated environments.

Our main communication language is English. (2B)

Nowadays, meetings are primarily held using digital tools, such as Teams, rather than in person. This may have reduced overall satisfaction among some employees, but at the same time, it facilitates easy communication across different locations and time zones, so I think it's a good thing. (3C)

We have many employees all around the world. We have offices throughout the Nordic countries, as well as a few elsewhere in the world, in Asia, Europe, and the US. It's really nice that our internationality is so visible, and also we mainly speak English as our working language. (5E)

One of the most prominent points in the data was the importance of trust, freedom, and personal accountability. Participants described their workplaces as places of self-

management, where self-initiating and self-structuring roles were the norms. Decision rights were seen as fairly distributed, and levels of management were described as flat, or even absent. Furthermore, the importance of the culture of open communications was reiterated. Employees were invited, and in some cases expected, to propose and challenge ideas, to voice criticism, and to participate in communications. These expectations were intended to create an environment of psychological safety and inclusiveness. Contrastingly, this environment of openness also created an expectation of self-initiated and self-directed communication, and an active contribution to the flow of information, rather than a passive consumption of the information provided.

The work is very independent. My job basically involves being able to work completely independently and on my own, and my workplace gives me the autonomy to do so. (3C)

Originally, we had a company culture where there weren't really any managers at all—every employee was treated as an equal. Everyone is trusted, and as you can see in our offices and other locations, you're welcome to come in whenever you like, even on weekends. (5E)

One thing that is very important is transparency and trust, and people are very encouraged to speak up if they have anything they want to discuss or if they have ideas, questions or like any concerns. (9F)

Another notable practice concerning the working conditions in Nordic multinational corporations is the flexible nature of their working arrangements. Most of the respondents mentioned that they are part of a hybrid working model, involving some mix of remote work and office attendance. Digital collaboration tools that work seamlessly across locations are instrumental in this flexibility. Participants mentioned the ability remote working affords in terms of managing their time, working from different places and the flexibility and comfort that can be associated with increased productivity.

Everyone can work remotely if they want to, which is really flexible. (6B)

Remote work and hybrid work are part of my job. (8C)

I work a hybrid type of job, so I save a lot of time on my commute on those days. I get to sleep two hours longer and save about an hour and a half a day on commuting, which is, at least in my opinion, a really positive thing. (9F)

Furthermore, a few respondents mentioned the importance of in-person communication, especially when it comes to team building and fostering more informal interactions. This indicates that, although the digital working environment can create a lot of flexibility, the physical working environment is still a necessity when it comes to maintaining the social fabric of organizations.

It would be nice if we could meet more face-to-face settings and if people were transported to other countries from our office in Finland, so we could actually see our colleagues in person. (1A)

It's true that when you meet face-to-face, you might be able to connect better with the other people, and the conversation might feel more genuine in a way. And I think that creates a stronger sense of team spirit when you're actually face-to-face. (3C)

I personally love working in person, I'm never remote. I guess I'm still dealing with some trauma from the pandemic, but I feel that working in the office helps because when I close my laptop there, I can leave it behind and just go home. It helps me separate work and free time, because at least there's that physical distance. And I also think working in person really helps to build team spirit. (5E)

Today's work environments make extensive use of digital technology to handle daily tasks. The interviews revealed that daily work tasks, such as coordination, communication, and information sharing, are primarily handled through internal systems, email, and Teams. In many cases, the core of the work is carried out using digital systems that enable the work to be performed, rather than merely supporting it. Interviewees reported using multiple digital systems simultaneously as part of their daily work, which demonstrates how complex the modern digital workplace is. Although the digital workplace

facilitates access to information and enables more efficient communication at work, it places demands on employees regarding how much time they spend interacting with digital systems as part of their daily work.

All of the communication and collaboration we do is happening through digital platforms such as Teams. We use Teams for everything, for sending messages, talking to others, meetings, and so on. We also use Outlook. And yes, these tools make it very easy to collaborate. (7F)

Almost everything is handled digitally now. We have all our meetings on Teams, and even meetings with clients, and with supervisors, and others like that take place on Teams. (8C)

Nordic multinational corporations generally offer flexible remote work options that emphasize independence as well as digital international collaboration and communication. However, the use of digital tools creates a work environment characterized by constant connectivity and diverse communication channels. This helps to understand the context of digitalization in relation to workforce requirements and resources, which are examined in the following sections.

4.2 Digital work demands in Nordic MNCs

Digitalization has transformed employee work expectations in Nordic MNCs. Numerous participants noted that while digital work tools made communication and collaboration work tasks easier, they also affected communication streams, created expectations of being available 24/7, and created a rapidly changing work environment. Employees reported that rapid work expectations and digital tools created cognitive and temporal pressures from having to continually balance premature work tasks, expedite communication, and manage streams of information.

The study identified three main categories of demands associated with digital work which were constant connectivity and information overload, the accelerating pace of

work and digital activities, and the blurring of boundaries between work and personal life. These themes demonstrate how digital work environments can strain employees' well-being, particularly by increasing interruptions, reducing opportunities for focused work, and blurring the boundaries between work and private life.

4.2.1 Constant connectivity and information overload

The results from the interviews show that Nordic MNCs have identified the digital nature of everyday work specifically for the ingestion of information and the constant need for connectivity. The respondents described the use of communication channels that include, but are not limited to, Slack, Teams, and email. As mentioned, each of these channels is flooded with messages, alerts, and updates on a continuous basis. Employees are often inundated with irrelevant information.

There's a lot of information coming in from all directions, and the pressure to stay constantly connected. I'd definitely say that, even when switching between email, Teams, and all the other channels, it feels like you have to be ready and available all the time. (1A)

I don't really feel pressure to stay in constant contact, but yeah, I do feel like I should reply to messages pretty quickly sometimes, since I get quite a few of them, which can be stressful at times. (2B)

Most of our communication happens in various Slack channels. There are literally hundreds and thousands of them. So we have Slack channels for everything from childcare to dating and recipes, and then, of course, all kinds of work-related channels. It gets pretty overwhelming when they're all buzzing at the same time. (5E)

The streams of communication are overwhelming, and the majority of participants tend to agree. Being a part of many channels, and email threads is often a reason for the lack of the detail of important information. The ability to reach out to someone digitally, is a behavioral trigger to interrupt someone, and people interrupt each other a lot during a workday, and people are likely to be interrupted many times. Workers are constantly

responding to questions and requests and are expected to switch tasks multiple times in a day.

Sometimes there's so much information coming in that it's hard to keep up with it. Sometimes something important has been announced, and I completely missed it, and then I realize later that oh, this thing had actually been announced earlier. (2B)

We have different Teams channels for everything, and people always want to add as many people as possible to these channels, so they just keep adding people. I'm also in a lot of Teams channels that have nothing to do with me, and I'm constantly getting notifications from them. People also often add me to email threads, and then I have to read through so much conversation history, which is also really annoying. And that leads to, yeah, like you said, there being so much information on all the different platforms. (7F)

Yeah, I always check right away whenever I get a new message, and of course that interrupts my work. And it feels like messages are constantly coming in through all sorts of different channels, and that disrupts my work. (8C)

In addition, the expectation of constant availability emerged from the interviews as a significant requirement. Participants reported feeling that they were expected to respond to messages quickly, regardless of the communication channel used. This creates a sense of constant availability, where employees are connected to their work throughout the day. The interviewees reported that, as a result, it becomes difficult to focus on individual tasks, as work is frequently interrupted by incoming messages and notifications.

Then people try to reach you by email and phone, and suddenly someone calls you on Teams without any scheduled meeting—so yeah, I'd say that puts a lot of pressure on that kind of constant communication. (1A)

Work messages definitely affect my concentration. Sometimes I get into a flow where I'm just really focused, but then when I get a few messages, my concentration immediately drops. (3C)

4.2.2 Intensification of work and digital pace

Based on the interview results, it can also be said that digitalization has accelerated the pace of work at Nordic MNCs. The interviewees reported that the pace of communication has quickened and become immediate. This, in turn, raises the bar for responding to messages quickly. Because information moves quickly between different digital platforms, employees feel pressure to keep up with the pace of communication and decision-making.

I would say that the pace of work has increased. (3C)

Work efficiency has improved slightly, but at the same time, the workload and pace of work have accelerated because information moves so quickly. We're expected to respond to everything very quickly. (4D)

I think we're all quite familiar with this digitalization by now, but I think that it has made communication in general even more fast-paced. (9F)

According to the interviews, the accelerated pace of work was often linked to stricter efficiency requirements. The interviewees reported that digital tools speed up work, but at the same time raise expectations regarding productivity and responsiveness on the job. As a result, many employees feel a constant sense of urgency at work. Based on the interviews, tasks must be completed more quickly than before, and communication requires an immediate response.

It's like things are really hectic and everyone is in a terrible rush, just when you're supposed to reply to an email right away. (1A)

In my opinion, digitalization increases the pressure to be efficient, so the risk of that workload does indeed grow. After all, there's just more and more digital stuff all the time. On the other hand, it enables flexibility and new ways of working. (3C)

I believe that digitalization will continue to influence how people work and collaborate, and I believe it will only speed up workflows and increase efficiency. (7F)

Based on the interview outcomes, the desire to have constant responsiveness appears to promote a reactive working style rather than one that is more structured. Typically, employees will reactively respond to new emails or messages as they come in throughout the course of a day. Therefore, they have a hard time maintaining an efficient flow of work but as indicated by some of the interview participants, the solution is to establish a schedule for their own work.

You have to be constantly available. There's just a huge amount of information, and that's where the pressure comes from. All the time, messages are coming in through different channels, messages you're supposed to respond to and react to. You have to prioritize these yourself. (4D)

I also try to like schedule focus work time. So, I realize that now I need to focus on my work for two hours. So, I check the messages maybe before my focus time or after it, but I try not to check them while my own scheduled focus time. (7F)

4.2.3 Work–life boundary challenges

The interview results show that maintaining boundaries between work and personal life in digital work environments presents challenges. The interviewees described how constant communication at work extends beyond working hours, as messages and notifications can arrive at any time of the day. Based on the responses, this creates a situation where employees may feel mentally connected to their work even outside of working hours.

Work-related things are always available on my phone, and sometimes I end up checking and replying to work messages in the evening after work. (4D)

Since I work with people in different time zones from all over the world, it would be pretty hard to completely ignore or not think about their messages and emails. So yeah, it could be said that I'm mentally connected to that work even outside of

working hours, because those messages come to my phone even when I'm on my free time. (8C)

Based on the responses from the interviews, employees working in international teams in particular reported that time zone differences exacerbate this challenge. Communication can occur across different working hours, increasing the likelihood that messages will be received in the evenings or during off-hours. As a result, employees may feel pressure to be reachable or to respond to messages outside of normal working hours.

Sometimes it feels like I end up responding to work-related matters even outside of work hours if I get a message from someone who works on a different time zone. (4D)

Working at an international company where I have colleagues in places like Asia and the United States, I have to keep in mind that they're in different time zones and therefore respond to messages at different times. I try not to check work messages during my free time, but sometimes I find myself checking my replies without even realizing it, and that's not a good thing. (5E)

Our team includes employees from different time zones, so I have to make sure not to reply to their messages while they're online and I'm off work, and instead check those messages when I get to work the next day. (6B)

Based on the interviews, constant availability can also make it difficult to disconnect from work. The interviewees noted that even when employees are not actively working, the existence of digital communication channels can create a sense of constant responsibility. This, in turn, can affect recovery over time as the boundary between work and personal life becomes blurred.

Yeah, I'm constantly thinking after work that did I get another email. And when I turn off my computer and decide that my workday is over, and someone hasn't replied to that critical thing that I'm waiting for an answer to. Yeah, it's a bit stressful, and it's that kind of subconscious stress where you're constantly thinking, "Sure, it'll be there tomorrow morning when I open my computer," but you're still thinking about it the whole time that what's left there and what's new. (1A)

Sure, it [constant connectivity] does cause stress sometimes, and that leads to exhaustion. You can't always disconnect from it, and you end up doing a lot of work that might be a bit unnecessary. (4D)

I would say that it can be challenging to disconnect from work, especially when communication is constant. For example, I work with people from India, and they're in a completely different time zone, so when it's nighttime for me, it's early morning for them, and that's when they might start sending me messages. (9F)

In summary, the interview findings indicate that digital work in Nordic MNCs is associated with several recurring demands. The most prominent demands identified were constant connectivity, information overload, interruptions, and challenges related to work-life boundaries. In addition, interviewees highlighted the use of many communication channels, accelerated pace of work, technostress, and increasing pressure for efficiency as key characteristics of digital work environments. Reactive working style and demands related to time zones were also mentioned. Table 3 summarizes the key digital work demands identified in the interviews.

Table 3. Key digital work demands identified in the interviews.

Demand	Total
Constant connectivity and availability	7
Information overload	6
Interruptions and reduced concentration	6
Work-life boundary challenges	6
Multiple communication channels	5
Accelerated work pace	5
Technostress (overload, complexity, invasion, uncertainty, insecurity)	5
Pressure for efficiency	4
Reactive working style	4
Time zone-related demands	4

4.3 Digital work resources in Nordic MNCs

The results show that digitalization is raising expectations regarding employee well-being. Based on data collected from employees at Nordic multinational companies, it appears that expectations regarding employee well-being have grown and that digitalization offers many resources for promoting employee well-being. Interview participants mentioned several ways in which digital tools, flexible work arrangements, and organizational support structures improve efficiency and job satisfaction. The interviews addressed employees' ability to manage their work more independently using digital tools, collaborate effectively across geographically dispersed locations, and adapt to a changing work environment.

Based on the analysis, the digital work resources offered to employees can be divided into four main categories. These are flexibility and autonomy, digital tools and procedures that facilitate collaboration, social and managerial organizational support for

employees in utilizing digital resources, and opportunities for learning and developing the skills needed to effectively utilize digital resources. In summary, these four areas of digital resources demonstrate how the support organizations provide to their employees through the use of digital resources can improve employee well-being.

4.3.1 Flexibility and autonomy

A key factor that emerged in the interviews was the increased flexibility enabled by digital work. The interviewees described how hybrid working models and remote work options give them the freedom to organize their work more flexibly than before. According to the interviews, digital tools enable working from different locations and flexible scheduling of working hours, which was generally seen as improving work-life balance and overall job satisfaction.

Personally, I do hybrid work, so the work itself is more flexible, the hours are more flexible, and I also have the autonomy to do the work on my own. I really like that. (3C)

The ability to work remotely and perhaps that kind of flexibility really do improve well-being and motivation. It makes it easier to balance work and personal life. If something comes up that requires you to work remotely, or if you have long travel times to work, it's easier to work remotely—and that really helps a lot. It definitely increases motivation, too. (4D)

In my opinion, the most important factor for motivation is flexibility in how and where the work is done. The fact that you can choose for yourself. (7F)

In addition to flexibility, independence was repeatedly highlighted in the interviews as a factor that supports well-being. According to the interviews, employees are often given responsibility for managing their own tasks and schedules, which can increase motivation and a sense that they have control over their work. Several interviewees reported that the ability to plan their work independently helps them work more efficiently and in accordance with their own preferences. This points to the fact that digitalization can

strengthen employees' sense of influence and commitment when combined with trust-based management practices.

It's definitely the flexibility and autonomy, and the ability to manage my own desk, that really helps motivate me. But as I mentioned, there are challenges, of course, but it's all in my own hands. It's my own responsibility to get things done. It's definitely really great that you get to have an impact yourself. (5E)

In our organization, we've always been given autonomy in our work—we're assigned a task, and then we go over it at some point, but I get to handle it on my own. That's important, and it gives me the feeling that my work matters more and that my own input is being trusted. (6B)

My job is really independent. My job is basically completely independent, and I do it on my own, and my workplace gives me independent responsibility for it. Of course, employees are given support, but for the most part, the effort always comes from the employee themselves. (8C)

4.3.2 Digital tools supporting collaboration

According to the interview results, the majority of interviewees identified digital tools as being extremely important for facilitating collaboration and communication among employees in Nordic MNCs. Platforms, such as Teams, Slack, and SharePoint, are considered essential daily work tools because they enable employees to coordinate tasks, share information, and meaningfully communicate with their colleagues who are dispersed among various geographic locations. Although there are numerous online work platforms available to employees, the majority of these platforms are also found to be essential.

I'd say you can get everything done twice as fast—or at least a lot faster. Perhaps people within the company haven't fully realized yet just how much it actually speeds things up and frees up time when you have all those digital tools at your disposal. (1A)

Everyone uses the same systems and the same shared project management tools. Since the documents in SharePoint are cloud-based, we can all work on the same topics. Whether we're working at the same time or at different times, everyone saves the same information there. Then we can very transparently track our teammates' tasks and work progress from there. And this is also in use across different teams and countries. (4D)

The interviewees noted that digital tools significantly facilitate international collaboration. Working across national borders and time zones was described as a normal part of daily work, and based on the interviews, digital platforms enable communication regardless of physical distance. Employees often viewed this as a major advantage, as it enables faster information sharing and more effective teamwork.

Yeah, I'd say that digital tools have made my job easier; the work itself goes a lot more smoothly and so on. (2B)

We're in touch with our colleagues and partners every single day, mostly via email, but of course we also have meetings with them. Those meetings are usually held on Teams, so we can easily connect with people in other countries even if we're in different time zones. (6B)

Teams is the most important channel for us, we use it between our team members, but also across countries. It's really easy to have Teams meetings, even if you're in a different country or time zone, it still works really well. (8C)

Without digital platforms, this kind of international collaboration would be much, much slower and more difficult, and now we're able to share information and coordinate our work almost in real time, which I think is really great! (9F)

The interviews also revealed that digital tools can be used to structure employees' work processes and facilitate accessibility to information. Interviewees reported that the digital tools available allow employees to easily search for documents, monitor their ongoing tasks and projects and keep them up to date. As a result, the use of digital tools positively supports employee productivity while reducing uncertainty in daily work. Digital tools, therefore, were identified by interviewees as not only necessary for employee

productivity but also as important resources required to promote fully seamless collaborative and efficient operational organizational activities.

In my job, all these digital tools make my work easier because the documents and information I need are often in one place, so I don't have to search for everything across multiple platforms. We also have a general rule here that we use the same SharePoint sites for example, and so on. (1A)

For me, when I can track tasks and projects using digital tools, my work becomes clearer to me, and it's easier to get a better picture of what I'm doing. (4D)

The interview results further support that AI is used increasingly in the workplace. The interviewees reported that AI helps them work efficiently and productively by providing them with suggestions quickly and helping them solve their problems. Additionally, several of the respondents indicated that the use of AI technology will also require them to learn new skills to continue using these tools successfully in their jobs. However, there was general agreement among the participants interviewed about the positive impact on job performance and the reduction of total work done when properly completing AI-related tasks.

Since artificial intelligence is constantly evolving, it will indeed eliminate some manual work. That leaves more time to focus on other essential tasks that AI can't handle. (3C)

Yes, it's a pretty big responsibility for people to figure out how to use AI tools and like, you really have to put in a lot of effort yourself to learn how to make the most of them. We have a project to build up our capabilities internally, because people are at very different levels when it comes to using AI. We have people who build bots for a living, and then we have people who open up Gemini or Copilot once a week. We've identified this as a problem and a challenge at the company level, of course. More specialized training and other related projects are definitely on the way. (5E)

Not only does it [AI] make things easier, but it also brings diversity to the work. We've also had training sessions for the entire staff on Copilot—how it works and

how to use it. We also had a contest for the entire staff last year, to see if we can come up with good ideas on which of our processes we should automate using AI and how to use it. We are encouraged to make more use of AI because it makes the work so much easier. (6B)

4.3.3 Social support and leadership

In addition to technological tools, social and managerial support emerged as an important factor influencing employee well-being in digital work environments. Participants emphasized the role of supervisors and team leaders in providing guidance, support, and clear communication. Especially in remote and hybrid work settings, the importance of maintaining regular contact and ensuring that employees feel supported was highlighted.

My boss is based in Denmark, and I have regular meetings with him to discuss how things are going and what his thoughts are on how the work is progressing. So, I'd say it's really easy to get feedback, even though my manager is based overseas. Overall, in our company, we very often have these feedback surveys within the team or within the company itself, asking how things are going, what you're up to, and how you're holding up. (1A)

I'd say that you do get both social and peer support really well through the digital environment, but of course it's not quite the same as it would be in person. (2B)

I'd say I get that [social and managerial support] easily, but that's mainly because I'm working in a hybrid role. I can ask for help, and my supervisor is really easy to reach—either through Teams or in person. Then we have, for example, online meetings where we go over current issues, and then monthly meetings with my supervisor where we go over goals and results, and we can even open up about personal matters. I think that's really important in a digital environment like this. (7F)

Team-level support was also described as a key resource. Open communication within teams, willingness to help colleagues, and a supportive atmosphere contribute to a more positive work experience. In some cases, managers were described as acting as a link

between employees and higher management, helping to clarify expectations and communicate organizational changes.

Especially in our team, the way it works is that we talk right away if there are any changes or updates, and you can call immediately to your supervisor or team members and so on. So, you really do get a lot of support from your teammates when working remotely in a hybrid model. When you have a team that's so accessible, someone is always there to respond and help right away. (2B)

What's really important to me is that there is trust within the team, so that people feel comfortable asking for help. For example, if someone or a certain team is swamped with work, the other members of that team will help out, or other teams will step in to assist with those tasks. (3C)

For example, our goals and organizational changes come directly from upper management, and then our supervisors share them with us, and we go over them together. This works quite well, even though sometimes it feels like senior management doesn't quite understand our work and so on. But communication between the different levels is still quite smooth and fast, I think. (8C)

We have a very open atmosphere in our team, and we know each other very well. That's why I always ask for feedback on my work, and others regularly ask me for feedback as well. (9F)

4.3.4 Learning and digital competence

Finally, opportunities for learning and developing digital skills are seen as an essential resource concerning digital work. Participants reported that organizations offer training, such as onboarding on new systems and more advanced topics, i.e. artificial intelligence in order to assist employees in their adaptation to digital tools and processes.

We had a lot of internal courses, so there are plenty of them available. For example, if you want to learn Excel, a graphics program, or anything else, the company pays for you to take the course, and you can develop your own skills. These are strongly

encouraged, and with a low barrier to entry, you can participate even during the workday and develop your digital skills. (1A)

Yeah, those courses really help, especially when it comes to using new systems. If there are any changes, you'll feel much more confident about it. After all, change is often seen as really difficult in larger teams, so those courses definitely help with that. (4D)

Continuous learning was seen as necessary due to the rapid development of digital technologies. Employees are expected to update their skills and learn how to use new tools effectively. While this can be demanding, it was also viewed as a positive opportunity for professional development.

Nowadays, it's really important to actually have the courage to try out new digital tools and then start using them at work, because they often make the work a lot easier and faster. (3C)

Sometimes it's really stressful trying to keep up with new technologies. You can't always keep up. But then you get help from your colleagues, and you just need to be more willing to try things out yourself. (6B)

Technology is developing so fast that companies have no choice but to keep up, while also providing their employees with training in new digital technologies. (7F)

Building digital competence assists employees with their confidence in their work and provides them with the capability to utilize and manage digital tools and systems. This can further decrease frustration and improve efficiency when performing daily tasks. The study indicates that organizations that commit to employee learning and skill development will strengthen employees' ability to cope with the demands of digital work and enhance their overall well-being.

I definitely feel much more confident as an employee when I know how to use those digital tools. And when you're more confident with those tools, your work becomes more efficient as well, I would say. (1A)

I feel that, from an employer's perspective, it's certainly very important for the future that the employer provides the necessary training and support for using different work tools. And with new technological breakthroughs constantly emerging, how the company implements them and then how employees actually learn to use them in their work. There is a huge responsibility on team leaders and, in the bigger picture, it's also important to allocate a budget for this kind of internal training and for developing internal capabilities. (5E)

At the organizational level, we're encouraged to use various digital tools to help our work, and that's the general guideline for everyone. I think that's a good thing. (9F)

In summary, the interview findings indicate that digitalization provides several key resources that support employee well-being in Nordic MNCs. The most important resources identified were digital collaboration tools, flexibility and remote work, autonomy, social and managerial support, and opportunities for learning and developing digital competence. In addition, the access to information and increasing use of AI was perceived as an emerging resource that enhances efficiency and supports daily work tasks. Table 4 summarizes the key digital work resources identified in the interviews.

Table 4. Key digital work resources identified in the interviews.

Resource	Total
Digital collaboration tools	9
Flexibility and remote work	9
Autonomy and independence	8
Social and managerial support	8
Learning and digital competence	8
Access to information and task clarity	7
Artificial intelligence (AI) as a resource	6

4.4 Impact on employee well-being

The results of the interviews illustrates that digitalization impacts the health and well-being of employees of Nordic MNCs in a variety of ways. Digitalization can neither be classified solely as positive or negative. Rather, it impacts the wellness of employees of Nordic MNCs as a result of the ever-changing relationship between what is asked of them (demand) and what tools are available to fulfil those demands (resources). While there are numerous examples of digital technology and flexibility of work arrangements supporting improvements in efficiency, autonomy, and collaboration, at the same time there are also examples where digital technology and flexibility of work arrangements create new challenges for employees. These relate to cognitive load, time urgency, and boundaries between work and personal life. Therefore, the impact of digitalization on employees of Nordic MNCs is a combination of both positive and negative effects.

Based on the interviews, three key dimensions were identified through which digitalization affects employee well-being. These were cognitive load and concentration, stress

and pressure, and work-life balance. These dimensions reflect how the demands and resources of digital work are experienced in daily work practices.

4.4.1 Cognitive load and concentration

One of the most significant effects of digitalization on employees of Nordic MNCs is cognitive load and concentration. According to the data collected in this research, the constant stream of digital communications, such as emails, messages, and notifications, leads to substantial amounts of information being processed by employees during the course of the workday. This results in increased mental workload and greater difficulty concentrating on individual tasks.

Whenever I get Teams messages or emails, my work gets interrupted the moment they pop up on my screen. It's hard to get back into that work mindset, I would say. And then, with so much information coming in from all these different channels, it feels like my mind gets a bit foggy at times. (2B)

There's so much information coming at us from every direction that sometimes it feels like you either have to keep up or fall behind. (6B)

Participants reported interruptions to their flow of productivity when they receive a number of messaging notifications. This causes them to be fragmented in how they work. Because there is a constant switchover between multiple types of work and communication mediums, participants indicated that they typically do not get to complete their work on the same task in order. This continual shifting from task to task or from one form of communication to another can take its toll on an individual's overall concentration due to the amount of cognitive energy needed with each switch.

Sometimes it feels like there's so much information coming at you from all directions that you can't focus on anything anymore. And then it's easy to just pick up your phone and start scrolling through it. (3C)

Yeah, I do have trouble staying focused. I can't say exactly why, but I'm sure it's partly because there are so many different channels for messages and information. And I find myself checking them too—for example, I check my email or Teams really often to see if anything important has popped up that I need to respond to right away. (4D)

Yeah, my work or concentration gets disrupted every time a notification pops up on the screen. (8C)

Additionally, it can be argued that technology supports cognitive process by providing access to helpful information and structure for how one's tasks are performed. For example, the use of shared technology platforms or digital systems enables people to monitor their progress, have access to the documents they need to perform their duties, and understand what is happening with their coworkers or other employees. This suggests that digitalization simultaneously increases cognitive demands while also providing tools that help manage these demands.

Yeah, I think it's really great that we have all these digital platforms, because it lets us keep our coworkers informed faster and more efficiently, even across different countries. We all use the same SharePoint platforms, so everyone gets the same information in real time. (2B)

Digital tools make work easier because the necessary documents and information are easy to find, and you don't have to search for everything separately in different places. It's like you always know where to find the information or then you can ask your colleague about it. (4D)

In my opinion, shared platforms make it easy to see at a quick glance where things are at, what's already done and what's still missing, which helps me get a better picture of my own work. So, it kind of brings a certain structure to my work. (5E)

Overall, the findings indicate that digitalization creates a more cognitively demanding work environment, where the ability to manage attention and prioritize information becomes increasingly important for maintaining well-being.

4.4.2 Stress and pressure

The findings also highlight that the way an organization uses digital technologies can have an impact on how stressed and pressured employees feel at work. Many of the employees that participated in the research mentioned that the increased rate of communication and expectations of a rapid response led to a greater sense of urgency in their daily jobs. Because of this urgency, many employees reported feeling like they needed to stay connected at all times, which produces a considerable amount of pressure since they are trying to keep up with the constant flow of communication and only do so much with their workload.

Well, yeah, I'd say things are really hectic and everyone's in a terrible rush—just when you're supposed to reply to an email right away, another message pops up on Teams. The default assumption is that everyone responds really quickly. We don't make unnecessary calls or anything, but then there are all these communication channels. So, you're supposed to be on them all the time, ready to respond. (1A)

Yeah, the workday does get a bit hectic when you have to respond immediately on Teams all the time. Or I often get this feeling that something is really urgent, but it actually isn't. Of course, sometimes things are genuinely urgent, but they aren't always—yet I still feel that stress and that sense that I have to reply to those messages right away. (3C)

I often feel like I should reply to messages right away, and that definitely makes me stress out more. (4D)

In addition, the continuous flow of information and multiple communication channels can create a feeling of overload. Participants described situations where the volume of messages and tasks becomes difficult to manage, leading to frustration and mental strain. This suggests that digital work demands can accumulate and intensify, particularly when employees are required to handle several tasks simultaneously.

We use Slack and Teams about 50-50, and especially on Slack, we have a lot of different channels, and sometimes it feels like there are even some channels that are completely unnecessary. Then notifications keep popping up, and we just try to keep up with them. (4D)

There's already so much to do, and then when you get a lot messages from different channels, it definitely adds more stress to the job, at least for me. (8C)

Our organization has a lot of different Teams channels. I've been added to many channels where I don't really need to even be. Then I get a lot of unnecessary notifications from these channels. I've muted most of them myself, but it's still a bit annoying. (9F)

The findings also indicate that some of the digital tools and resources available to employees can help reduce the levels of pressure and stress caused by digital work demands at times. Some of these tools and resources include having flexibility in working arrangements and implementing autonomy in managing and completing tasks that allow employees to arrange their workload in ways that lower their stress. Additionally, having the support of coworkers and managers has also been shown to help employees when dealing with digital work demands.

Flexible work hours suit me really well, because it saves a lot of time and lets me plan my day much better. (2B)

In a way, because my work is very independent and I can do it all by myself from home, it actually reduces stress—since we really rely on both individual and team efforts—and that definitely improves how I feel about my work. (4D)

For me, the most important thing in a stressful work environment and in managing that work is my coworkers and their support. Of course, it's also important to get the necessary support from my boss, and luckily, I get support from him regarding my work as well. But my coworkers are the most important—it's nice to work when you have a great team and can always get help if you need it. (5E)

4.4.3 Work-life balance

Digitalization also affects how we see our job versus our personal life. Research shows that with the continual use of digital communications and being virtually connected to the workplace at all times, employees have blurred the lines between when they are at work and when they are not. This is problematic for employees who are receiving constant messages and notifications after normal working hours and creates a feeling of always having an obligation to their job.

I'd say that, for example, LinkedIn, a lot of people want to add you as a connection there. There's nothing wrong with that, but then it's a bit like when you scroll through your LinkedIn feed and you have a lot of coworkers and friends there, you constantly see a lot of internal company communications. And you can't really escape it, so you end up thinking about work-related stuff whenever you come across company posts on social media. (1A)

I don't have a work phone myself, and I wouldn't want one either, because I'm sure I'd end up working after my actual working day or checking messages on it. But, for example, I've noticed with other employees in our organization that if they do have a work phone, they've said they end up using it at home in the evenings to check messages and stuff. (2B)

Well, personally, I don't feel like it [digitalization] really disrupts the work-life balance. Of course, it has some impact, and since I try to always be available, I end up checking work-related things in the evenings or on weekends. (6B)

At my job, I don't have Teams on my phone, so there's no way for anyone to reach me or bother me during my free time. I've wanted to draw a strict line there—I don't download it because it's not required for my job. (8C)

In particular, participants working in international environments highlighted that time zone differences contribute to this challenge. Communication across different regions may extend the workday beyond traditional hours, making it more difficult to fully disconnect from work. As a result, opportunities for recovery and psychological detachment may be reduced.

Sometimes I feel like I end up responding to work-related messages even outside of work hours if I get a message from a team member, especially when team members are working in different time zones. And then, when I'm bored at home, I easily end up replying to those messages. (4D)

Yes, for example, I've noticed that when I'm in contact with colleagues in other countries, if they reply to me in the evening, I automatically check what they've said and might reply to the email right then and there. The fact that you're working in a different time zone certainly doesn't improve the work-life balance. But I'm used to it, though. (6B)

At the same time, digitalization also enables greater flexibility, which can support work-life balance. The possibility to work remotely and adjust working hours allows employees to better integrate work with personal life. Many participants viewed this flexibility as a positive aspect of digital work, as it provides more control over when and where work is performed.

Personally, I really like that we have a hybrid work model, so I can decide for myself when I go to the office and when I work from home. For me, at least, this really helps to improve the work-life balance. Of course, we also have mandatory office days for the whole team, but it's always nice to go there, too. (3C)

For example, if I have something to do in the morning, it's nice that I can start work whenever it suits me and finish whenever it's best for me. So, this is definitely a big plus for me in terms of flexibility. (5E)

I think that the hybrid work model is a really good thing, because it allows you to improve your work-life balance by choosing for yourself when you want to be in the office and when you don't. (7F)

4.5 Summary of findings

The impact of digitalization on employee well-being manifests as a clear dichotomy consisting of supportive and demanding factors. On the demanding side, digital work offers

employees, for example, flexible working hours, the freedom to choose their workplace, new and better ways of communicating, and better access to information. On the supportive side, however, digital work increases pressures on employee well-being related to the volume of information, the speed of work, and expectations regarding constant responsiveness.

The results indicate that being an organization based in Nordic countries significantly influences how people experience digital working. The interviews provided evidence that these organizations tend to be international, digitized workplaces, and offer a degree of flexibility in the way that employees are able to work, and as a result place significant emphasis on trust, autonomy, and open lines of communication between employees. Collectively, these features of the workplace would appear to contribute to an ideal environment for engaging in digital work activities and enable employees to work more autonomously with greater ease across locations. Conversely, however, employees in this type of organization face increased demands associated with their ability to utilize multiple channels of communication, manage their work activities across multiple time zones, and maintain responsiveness while working in highly connected environments.

A central finding of this study is that digital work demands, and digital work resources exist simultaneously and often within the same work practices. For example, digital communication tools were described as essential for collaboration and efficiency, but also as major sources of interruption, overload, and pressure. Similarly, remote and hybrid work were associated with flexibility and better control over one's work, while also making it more difficult for some employees to detach from work outside working hours. This suggests that the impact of digitalization on employee well-being cannot be understood as purely positive or negative, but rather as dependent on how the balance between demands and resources is managed in daily work.

Overall, the findings of this study show that digitalization has increased opportunities as well as pressures of work on employees at Nordic multinational corporations and,

therefore, this has had an impact upon employee well-being. Employee well-being is best supported by having sufficient flexibility, autonomy, support and digital competence to assist employees in meeting the demands of digital work. Whereas, employee well-being can be negatively impacted when the volume of communication, rapidity of work and expectations for availability exceed an employee's capacity to cope or manage. The results of this study provide the basis for the subsequent discussion chapter where the results are discussed in relation to previous literature and the theoretical framework of the study.

5 Discussion

This chapter discusses the findings of the study in relation to previous literature and the theoretical framework. First, it examines how the demands of digital work relate to employee well-being, followed by a discussion of the role of digital work resources in supporting well-being. The chapter then considers the overall impact of digitalization on employee well-being in Nordic multinational corporations. Finally, an updated theoretical framework is presented based on the findings of the study.

5.1 Digital work demands and employee well-being

According to the results of this study, Nordic MNCs experience an array of demands in their use of digital technology as it relates to work that could contribute to adverse effects on employee well-being. Key characteristics of the Nordic digital workplace were found to be constant connectivity, information overload, a fast pace of work, and the inability to distinguish between work and non-work-related activities. While these characteristics of the Nordic digital workplace are in agreement with previous research regarding multinational digital work demands, they also provide a richer and more nuanced context-specific portrayal of how these demands manifest themselves among employees in Nordic MNCs.

A key outcome of this study is that employees experienced a continual barrage of incoming communication via multiple digital channels that places significant pressure on them to be available for contact and to respond quickly whenever possible. This finding supports prior research that has shown how digitalization increases the expectation of real-time feedback and the requirement of being continuously available to respond to other people in a globally integrated working environment (Bhandari et al., 2023, p. 2; Cantwell & Shukla, 2025, p. 10). However, the present findings add that in everyday work this is experienced not only as a faster pace of communication, but also as fragmented work. Interviewees described having to shift attention repeatedly between messages, meetings, and tasks, which reduced concentration and made work feel more interrupted

rather than more efficient. In the Nordic MNC context, this appears particularly relevant because digital work is embedded in international coordination across teams, locations, and time zones.

The findings also confirm earlier research on information overload. Previous studies have demonstrated that when the amount of information received eventually exceeds an individual's personal processing capacity, their decision-making ability and performance tend to degrade (Horlings et al 2023, pp 222-223). Furthermore, the majority of participants in this study indicated they experienced difficulty trying to keep up with the overwhelming number of messages, notifications and updates across multiple systems. Because of this, the participants were mentally fatigued as a result of trying to focus on mentally demanding functions. These results support the contention that there exists a considerable cognitive overload due to the digital workplace, in addition to benefits related to efficiency gains.

Another important demand identified in the data is the acceleration of work. Many participants described digital work as fast-paced and urgent, with expectations of rapid responses and short timelines. This supports earlier research showing that information and communication technologies reshape not only how work is performed, but also the speed and intensity of work (Cijan et al., 2019, pp. 4–5). The findings of this study refine this view by showing that in Nordic MNCs accelerated work is closely tied to the combined effects of multi-channel communication, international collaboration, and continuous responsiveness. In this sense, the pace of digital work is not only a technological issue, but also an organizational one.

The findings further show that digital work demands frequently extend beyond formal working hours. Several participants reported remaining mentally connected to work during evenings or outside regular working hours because of messages, ongoing communication, or collaboration across time zones. This is in line with earlier studies suggesting that remote and digitally mediated work can blur the boundaries between work and

private life, even when flexibility is generally viewed as beneficial (Alsos & Dølvik, 2021, pp. 50–51, 78). The findings also reflect features of techno-invasion, where technology extends work into employees' private lives and weakens their ability to detach from work (Kumar, 2024, p. 2). In Nordic MNCs, this challenge appears to be intensified by the international nature of everyday digital workflows, where employees are expected to remain accessible across different temporal and geographical settings.

Overall, the findings indicate that digital work demands in Nordic multinational corporations are not limited to isolated stressors, but form an interconnected pattern of constant communication, interruptions, cognitive overload, rapid responsiveness, and boundary blurring. While these observations are consistent with prior JD-R-based research showing that high digital demands may impair employee well-being (Kunzelmann & Rigotti, 2021, pp. 311–312), this study adds a more context-specific insight. In Nordic MNCs, these demands are intensified not only by digitalization itself, but also by the combination of high digital maturity, cross-border coordination, and organizational norms that assume autonomy and ongoing accessibility.

5.2 Digital work resources and employee well-being

The findings of this study show that digitalization has created new demands of employees and importantly, new resources from which employees can benefit, thus enhancing employee well-being in Nordic MNCs. In particular, flexibility, autonomy, digital collaborative tools, social and managerial support, and learning opportunities to be key resources identified from the interview data. These findings provide a similar basis as previous studies identifying that digital work-related resources contribute to employee motivation, engagement and well-being, while also providing a more contextualized understanding of the role that these support resources play in Nordic MNCs.

One of the most important resources identified in the findings was flexibility associated with hybrid and remote work arrangements. Employees described digitalization as increasing their ability to organize work more independently in terms of time and location.

This supports earlier studies suggesting that digitalization can enhance flexibility and improve work engagement and well-being (Cijan et al., 2019, pp. 4–5). In the present study, flexibility was often linked to improved work–life balance, reduced commuting, and greater control over the working day. At the same time, the findings suggest that the value of flexibility depends on how it is structured in practice. In Nordic MNCs, flexibility appears to function as a meaningful resource when it gives employees room to organize work in ways that support both performance and well-being, rather than simply extending work across more times and spaces.

The data showed that autonomy is a significant source of motivation for employees as they described their digital work activities as self-directed. Further, these employees said they valued being trusted to manage, order, and finish their tasks without having their supervisors check in frequently. This is consistent with findings from earlier studies which indicate autonomy is an essential contributor to both motivation and well-being (Kunzelmann and Rigotti, 2021, 311-312). However, this additional perspective provides a more nuanced view of the impact of autonomy on well-being in Nordic MNCs. In this type of environment where there are low levels of hierarchy and trust-based forms of management, autonomy supports employee well-being only if the employee has both responsibility and adequate levels of support from the organization. Without sufficient clarity concerning expectations and processes, autonomy may not only inconvenience employees by requiring them to personally manage their own boundaries, such as work hours and load, but it may also add to their stress. Therefore, it can be said that autonomy does not provide value to employees by itself. However, when employees have access to supportive resources and clear expectations, autonomy can provide the greatest level of benefit.

The study participants thought that digital collaborative tools are critical resources in carrying out their daily jobs. They characterized Teams, Slack, and SharePoint as the primary tools used to communicate, coordinate tasks, and access information across geographically dispersed teams. This is in line with prior research indicating that the use of

digital technologies enables organizations operating in multiple countries to collaborate more effectively and efficiently by minimizing temporal and spatial separation (Bhandari et al 2023: p. 7; Cantwell & Shukla 2023: p. 10). Moreover, the study's results provide further evidence of how employees used these types of tools daily. In addition to facilitating collaboration, the shared systems and real-time capabilities of these tools helped workers complete tasks and locate document files while maintaining visibility into the work of other employees located in different countries. As such, digital tools served both as communication channels and resources that provided employees with a greater degree of structure and predictability when performing their day-to-day tasks. This seems particularly relevant for Nordic MNCs where companies use digital coordination as an integral element of cross-border collaboration and virtual teams.

Another central resource identified in the findings was social and managerial support. Employees emphasized the importance of accessible supervisors, supportive teams, and established practices of open communication, particularly in hybrid and remote work settings. This is consistent with previous research showing that social support is an important resource for maintaining well-being and engagement in digital work environments (Kunzelmann & Rigotti, 2021, pp. 311–312). The present findings add that in Nordic MNCs such support is closely connected to leadership behaviors that reflect trust, openness, and availability. Regular communication and constructive feedback were described as especially important in maintaining a sense of connection and support when face-to-face interaction is limited. This suggests that in digital work environments, managerial support is not only a general resource, but also a key mechanism through which organizational culture is made visible in everyday employee experience.

Training options for acquiring digital competence and enhancing digital capabilities emerged as another critical resource. Previous studies have indicated that continuous learning and improving one's digital competence were ways for employees to deal with technology and unpredictability (Kumar, 2024, p. 4). While hands-on training remains important, the purpose of learning is also to boost self-confidence, create new career

opportunities, and reduce frustration related to digital work. The developing role of AI was highlighted throughout the research. Interviewees discussed several ways in which they could use AI as a tool for processing information, generating content, and solving problems, thus increasing their productivity and decreasing the amount of work they had to do manually. While the results of the study show that the outcomes of using AI will vary depending on how well the organization trains and supports employees when using AI, these findings support the continuing need for organizations to provide employees with an opportunity to utilize the tools and develop their skills to make the tools meaningful.

Overall, the findings indicate that digital work resources play an important role in supporting employee well-being in Nordic multinational corporations. Flexibility, autonomy, digital tools, social support, and learning opportunities all contributed positively to employees' ability to manage digital work. However, the findings also show that these resources are not automatically beneficial. Their value depends on how they are implemented, supported, and embedded in everyday work practices. In this sense, the study adds to earlier research by showing that in Nordic MNCs digital resources support well-being most effectively when they are accompanied by clear structures, supportive leadership, and organizational practices that help employees manage the demands of digitally mediated work.

5.3 The overall impact of digitalization on employee well-being in Nordic MNCs

Results from this research suggest that digitalization affects the well-being of employees in Nordic multinational corporations in complex and ambiguous ways. Digitalization generates both beneficial and detrimental outcomes simultaneously, therefore creating possibilities to support and damage the well-being of employees at the same time. The overall impact depends on how digital job demands, digital job resources, and the wider organizational context interact in employees' everyday work. In this respect, the findings

suggest that employee well-being is shaped less by digitalization itself than by the balance that develops between its enabling and straining effects.

A central finding of this study is that digitalization increases both demands and resources at the same time. In the interviews, employees mentioned an increase in cognitive load, a faster pace of work, constant communication, and difficulty disconnecting from work. On the other hand, there were also accounts of increased flexibility and independence, improved collaboration, and more efficient ways of organizing work. This is consistent with earlier research showing that digital work can simultaneously generate both demands and resources (Kunzelmann & Rigotti, 2021, pp. 311–312). However, the present findings add that in Nordic MNCs these effects are often experienced simultaneously within the same work practices. Digital tools that facilitate collaborative and flexible working arrangements can cause disruption and create high expectations for individuals to respond promptly outside of formal working and scheduled hours. Therefore, that is why digitalization cannot simply be divided into a positive and negative side. Instead, a more dynamic approach is needed to understand how digital work is experienced in everyday working life.

The findings further indicate that negative well-being outcomes become more visible when digital demands are not sufficiently balanced by available resources. Interviewees described reduced concentration, increased stress, and difficulties in detaching from work, especially when working across several communication channels or across different time zones. These findings are in line with earlier research on technostress, which links technology use to information overload, invasion of non-work time, and constant pressure to adapt (Kumar, 2024, pp. 2–4). In the present study, however, these pressures appear particularly pronounced in work environments where digital communication is continuous and international coordination is part of everyday practice. This adds a more context-specific insight by showing that in Nordic MNCs the intensity of digital demands is shaped not only by technology use itself, but also by the cross-border and always-connected nature of multinational work.

At the same time, the findings show that digital resources can significantly support employee well-being when they are available and effectively embedded in daily work. Frequently mentioned resources included flexible work arrangements, autonomy in task management, accessible digital tools, and support from supervisors and colleagues. These resources were associated with greater efficiency, stronger motivation, and better work–life balance. Earlier research has similarly shown that job resources can buffer the effects of demands and contribute positively to engagement and well-being (Kunzelmann & Rigotti, 2021, p. 311). The present findings extend this understanding by showing that in digitally mediated Nordic MNC work, resources are most effective when they do not only provide freedom, but also create clarity, support, and predictability. In other words, resources support well-being not simply because they exist, but because they help employees manage the complexity of digital work.

An important overall insight of this study is that the Nordic multinational context shapes how digitalization is experienced. Organizational features such as trust-based management, low hierarchy, open communication, and high employee autonomy as organizational features can reinforce the positive impacts of digital resources by giving workers increased control in determining how to arrange their job. However, these same organizational features may also shift more of the individual obligation to handle workload, availability and boundaries to individual employees. Consequently, the Nordic context does not alter the challenges posed by digital work but rather influences how these challenges are perceived and addressed. The findings are significant because they imply that organizational values believed to be advantageous can have unanticipated negative effects when they coexist with high digital intensity and international cross-coordination.

Ultimately, the results indicate that the connection between digitalization and employee well-being in Nordic multinational corporations is best conceived of as an ongoing balancing mechanism of resources and demands in relation to a particular organizational environment. When digital resources are appropriately facilitated, employees perceive

digitalization as enabling, stimulating, and promoting their well-being. When demands exceed available resources, however, employees are more likely to experience stress, cognitive strain, and difficulties in maintaining work–life balance. Thus, the overall contribution of this study is to show that the relationship between digitalization and employee well-being is not fixed but shaped by the continuous interaction between digital work practices, available resources, and the contextual conditions of Nordic multinational corporations.

5.4 Updated theoretical framework

The purpose of this study was to examine how digitalization influences employee well-being in Nordic multinational corporations. Based on the empirical findings, the initial theoretical framework presented in Figure 5 was further refined to better reflect the complexity of digitally mediated work in Nordic MNCs.

The findings support the general view that employee well-being is shaped by the interaction between job demands and job resources. The study also shows that in digital work settings the boundary between these categories is not always clear. The findings suggest that digital tools and practices can function as both resources and demands simultaneously depending on the experience of them in daily work. The new framework therefore provides a more dynamic and contextual view of digital work by showing that there is a dynamic relationship between the demands placed upon employees and the resources available to complete the tasks.

The evident dualistic nature of digital communication and collaboration platforms, such as Microsoft Teams and Slack, manifests in both positive and negative outcomes when examining their impact on coordination, collaboration, information access, the number of interruptions, the level of information overload, and the expectation of always being available for work-related matters. By applying the updated framework to digital practices in the workplace, it is clear that the interaction of digital practices will have an

ambivalent effect on the workplace and employee well-being, and that digital work practices can be interpreted as both a resource and a demand at the same time.

Results have underscored the significance of the Nordic MNC as providing a context for experiences with digital work. The organizational characteristics of trust-based management systems, low levels of hierarchy, high employee autonomy, and open channels of communication are also identified as important contextual elements present in the data. These particular features may serve to enhance the positive effects of digital resources through supporting flexibility, responsibility, and self-direction. Alternatively, due to their globally integrated and alternatively virtual characteristics, Nordic MNCs may also increase the level of job demand associated with cross-border co-ordination, continuous accessibility, and heightened need for self-management. For this reason, the updated framework positions Nordic MNC contextual factors as a shaping influence on the relationship between digital work demands, digital work resources, and employee well-being.

The updated theoretical framework presented in Figure 6 therefore integrates five inter-related components, which are digital work demands, digital work resources, digital practices and technologies, Nordic MNC contextual factors, and employee well-being outcomes. These components are connected through the JD-R process, while the framework places greater emphasis on the dynamic interaction between demands and resources and on the contextual shaping influence of the Nordic MNC environment. In this way, the updated framework provides a more nuanced representation of digitally mediated work by showing that employee well-being is shaped not only by the presence of demands and resources, but also by how digital practices are experienced and managed within a specific organizational context. The updated theoretical framework is presented in Figure 6 below.

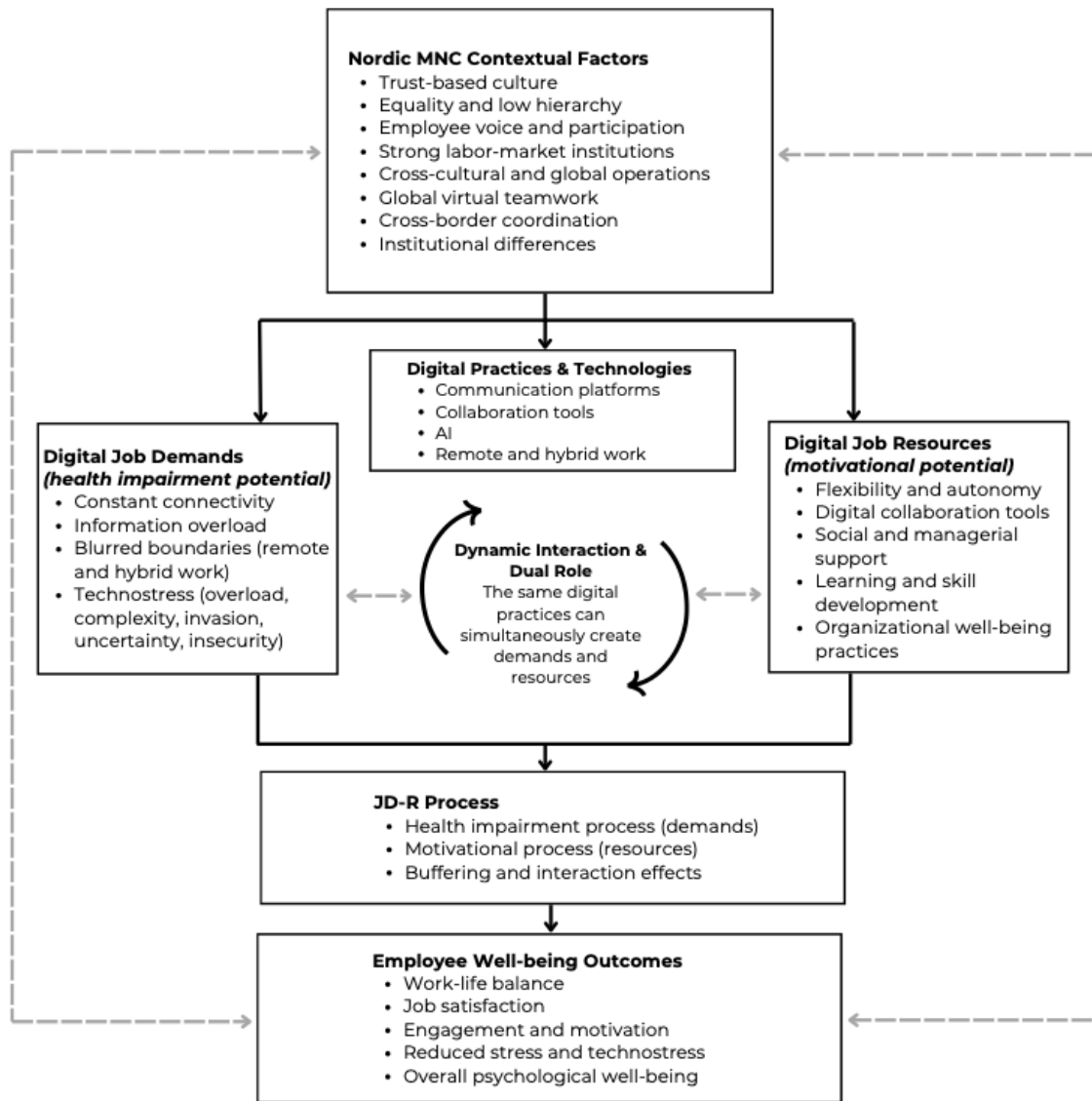


Figure 6. Updated theoretical framework.

6 Conclusion

This chapter first concludes the key findings of the research by answering the three research questions. After that the theoretical, empirical and practical contributions are introduced. Lastly, the future research suggestions are implemented.

6.1 Key findings

This chapter provides a summary of the study's key findings by addressing the three research questions.

RQ1: How does digitalization influence employee well-being in Nordic multinational corporations (MNCs)?

The findings show that businesses operating in the Nordic MNCs who have gone completely digitalized have an overall impact on the well-being of their employees, particularly in how they change the balance between demands and resources for work. The impact is not solely positive or negative but has changed the nature of work in such a way as to provide both supports and obstacles with respect to employee well-being. Digitalization provides employees with increased flexibility, autonomy and better functioning group collaboration process of working across geographical boundaries. Through the use of digital tools, employees can access information quickly, organize their work much more autonomously from one another while at the same time increasing employee motivation level and employee satisfaction in the workplace. Digitalization also creates new demands for employees that can have negative effects on employee well-being, including continuous communication, always expected to be available to work, and an accelerated pace of work. These are all examples of how digitalization increases the cognitive load placed on an employee as well as creating time pressure to complete many tasks simultaneously. Therefore, these new demands associated with digitalization can lead to breakdowns in the concentration of employees as well as fragmentation and disconnection from their work. Overall, based on what have been found in the literature, the level of effect that digitalization is going to have on employee well-being is going to depend

on the context of the organization as well as the balance between demands and resources of work within Nordics MNCs.

RQ2: How do digital work demands inhibit employee well-being in Nordic MNCs?

Research findings show that the digital demands placed on employees in the workplace can have a negative impact on their well-being. Round-the-clock access to work-related emails and messages causes increasing interruptions in employee productivity and causes them to lose focus on a specific task. Employees are also under significant pressure to respond to all work-related emails very quickly, which imposes time constraints on them. The need to respond quickly also leads to employees constantly switching between multiple tasks instead of being able to work clearly and without interruption. This increased cognitive demand makes the employee's work less cohesive. In addition, employees often engage in digital communication outside of normal working hours, which makes it difficult to separate work and personal life. Furthermore, employees may think about their work during their free time, which reduces opportunities for recovery and thus increases stress and fatigue. The results of this study indicate that digital demands in the work environment can significantly strain an employee's mental well-being by increasing mental strain, impairing concentration, and limiting the employee's ability to separate their work and personal lives.

RQ3: How do digital work resources enhance employee well-being in Nordic MNCs?

The results show that digital work resources significantly contribute to the well-being of employees by assisting them in managing the demands of digital work. Flexibility and autonomy were identified as the key resources that enable employees to plan their work based on their own preferences with respect to time and place, thus supporting work-life balance and improving motivation. Digital collaboration tools also serve as key resources by enabling effective communication, coordination, and sharing of information across borders. Digital collaboration tools allow employees to accomplish their tasks with greater efficiency and reduce uncertainty regarding their daily jobs. In addition, social and managerial support were recognized as critical resources in the context of digital

work. Supportive supervisors, a strong sense of teamwork among colleagues, and good communication systems facilitate all employees' ability to manage their work-related challenges and maintain a sense of belonging to an organization, especially in remote or hybrid settings. Ultimately, opportunities to learn and develop digital skills provide well-being by boosting employees' confidence in their ability to use digital technology and adapt to changes in technology. Growing adoption of AI has also been viewed as a means of improving efficiencies and eliminating repetitiveness in work processes, when used appropriately. In conclusion, these results indicate that digital work resources enhance well-being through increasing employees' perceived control of their task, facilitating collaboration with others and helping them meet the expectations of working within a digitalized work environment.

6.2 Theoretical, empirical and practical contributions

This section addresses first the research's theoretical contributions, which is followed by a discussion of empirical contributions and practical implications.

6.2.1 Theoretical contributions

This study offers many theoretical contributions. In the first instance, this research extends the JD-R model to digitally mediated work within Nordic multinational companies. The prior research identified some digital job demands and digital job resources in this environment, including constant connection, information overload, and blurred work-life boundaries, as well as flexibility, autonomy, and social support (Kunzelmann & Rigotti, 2021; Kumar, 2024). However, the results from this research suggest that these two groups are less distinct when working digitally. Instead, many digital work practices simultaneously contain both demand and resource elements.

Second, this study contributes to the literature by highlighting the demand-resource duality of digital work practices. The findings of this study show that the same types of digital technological tools and practices can assist in providing flexibility, autonomy,

efficiency, and collaboration as well as contributing to an increase in cognitive load, time pressure, interruptions, and the obligation to be continuously available. As such, this supports a more dynamic understanding of the role of digital technologies in the workplace, rather than treating them as either beneficial or harmful. This is consistent with prior studies suggesting that digital work characteristics can simultaneously function as both job demands and job resources (Kunzelmann & Rigotti, 2021, pp. 311-312). Considering this, the current study also extends the JD-R model through demonstrating that the impact of digitalization on employee well-being is context dependent and that the way in which digital tools are used will impact how they are perceived in everyday work. This supports the findings of earlier studies which indicate that digital work characteristics such as flexibility and autonomy can be a resource but can also create demands when used in a manner that involves blurring boundaries, being constantly connected and increasing individual responsibility (Alsos & Dølvik, 2021, pp. 50-51, 78).

Third, this study provides a contextual refinement of the JD-R model by incorporating the Nordic MNC environment into the analysis. Earlier research has shown that Nordic working life is characterized by trust, equality, participation, autonomy, and relatively flat hierarchies (Alsos & Dølvik, 2021; Berg et al., 2023; Torp & Reiersen, 2020). The findings of this study suggest that these organizational and institutional characteristics shape how digital job demands and resources are experienced and managed in practice. In this way, the Nordic MNC context can be understood as a higher-level contextual layer that influences the relationship between digital work practices and employee well-being. Thus, the study contributes theoretically by showing that the effects of digitalization on employee well-being are best understood not only through the traditional demand-resource balance, but also through the organizational context in which digital work takes place.

6.2.2 Empirical contributions and practical implications

Using qualitative analysis, this study contributes to international business research and provides insight into the effects of digital work on employee well-being across Nordic

multinational corporations. Findings reveal that the experience of digital work by employees is dependent upon multiple contextual factors that include, for example, trust-based management, flat hierarchies, and high levels of employee autonomy. Consequently, these higher-level contextual resources are relevant for determining the relationship between job demands, job resources, and employee well-being. Therefore, the results of this study emphasize the need to investigate employee experiences of digital work from an organizational perspective.

From a practical perspective, the results offer several implications for managers and organizations operating in digital work environments. First, organizations should actively manage digital work demands by establishing clear communication norms and expectations regarding availability. Reducing unnecessary communication and supporting focused work can help alleviate information overload and cognitive strain.

Second, companies must also have sufficient resources from which to build a digital workforce that promotes employee flexibility and independence. Flexibility and independence increase motivation to produce and become engaged, but independent work can create confusion in how much work is acceptable. Therefore, guidelines should be established to avoid an overwhelming amount of work being completed.

Third, despite potential differences in the digital employee's work environment and the various forms of support available, the employee's immediate supervisor plays a particularly important role in the digital environment. The findings suggest that it is essential that the employee's supervisor, regardless of whether they are in the office or working remotely, sets aside time each week for verbal or written communication with the employee and provides constructive feedback so that the employee can continue to feel like part of their team.

Finally, organizations should also provide their employees with opportunities to participate in productive and ongoing learning opportunities to develop their skills, so that

employees are better prepared to use evolving technology effectively. Continuous employee development improves employees' ability to use both new and existing technologies more effectively and increases their confidence in using new technologies.

6.3 Future research suggestions

This study has several limitations that must be taken into account when interpreting the results and that also offer opportunities for future research. First, the study is based on a qualitative research design with a relatively small sample size of only nine interviewees. Although this approach provides in-depth insights into employees' experiences, the results cannot be generalized to apply to all Nordic multinational companies. In future research, these findings could be supplemented with quantitative studies examining the relationships between the demands of digital work, resources, and well-being using larger samples.

The second limitation of the study is that it focuses only on Nordic multinational corporations, which offer unique institutional and cultural characteristics. While the Nordic context provides valuable insights, these will likely not directly apply to organizations in other areas with distinct work cultures and management systems. There are opportunities for future research to conduct comparative studies of Nordic and non-Nordic environments to further examine the differing institutional contexts' influence on digital work experiences.

Third, the study is limited to examining digitalization as a whole without examining in-depth the influence of specific technologies. While AI was an important finding of the study, it was not the primary area of interest. Future studies can examine more specifically how different technologies, such as AI, automation or digital monitoring systems, have an influence upon employee well-being and work planning.

Moreover, it would be beneficial for future studies to take a long-term view of how the relationship between digitalization and employee well-being develops over time. As

technology advances and methods of working digitally change, there is a need to understand how employees respond to the changing demands of their job and what types of resources will provide the best support for employees over the long term.

Finally, further research could investigate how individual differences affect employees' perceptions of using a digital medium to perform their jobs. Several variables such as age, competency with technology, position within an organization, and personality may influence an employee's perception of digital work. Understanding these differences can assist employers in creating digitally based working conditions that are more specific to their organization as well as inclusive to all employees within the organization.

References

- Aggarwal, R., Berrill, J., Hutson, E., & Kearney, C. (2011). What is a multinational corporation? Classifying the degree of firm-level multinationality. *International Business Review*, 20(5), 557–577. <https://doi.org/10.1016/j.ibusrev.2010.11.004>
- Alsos, K., & Dølvik, J. E. (Eds.). (2021). The future of work in the Nordic countries: Opportunities and challenges for the Nordic working life models (TemaNord 2021:520). Nordic Council of Ministers. <https://doi.org/10.6027/temanord2021-520>
- Aspers, P., & Corte, U. (2019). What is qualitative in qualitative research. *Qualitative Sociology*, 42(2), 139–160. <https://doi.org/10.1007/s11133-019-9413-7>
- Bakker, A. B., & Demerouti, E. (2007). The job demands–resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Berg, T. E., Børve, H. E., & Røkenes, F. M. (2023). The Nordic model and management in international corporations: A scoping review. *Nordic Journal of Working Life Studies*. <https://doi.org/10.18291/njwls.141901>
- Bhandari, K. R., Zámorský, P., Ranta, M., & Salo, J. (2023). Digitalization, internationalization, and firm performance: A resource-orchestration perspective on new OLI advantages. *International Business Review*, 32(4), Article 102135. <https://doi.org/10.1016/j.ibusrev.2023.102135>
- Bhat, Z. H., Yousuf, U., & Saba, N. (2023). Revolutionizing work-life balance: Unleashing the power of telecommuting on work engagement and exhaustion levels. *Cogent Business & Management*, 10, Article 2242160. <https://doi.org/10.1080/23311975.2023.2242160>
- Björkman, I., & Forsgren, M. (2000). Nordic international business research: A review of its development. *International Studies of Management & Organization*, 30(1), 6–25. <https://www.jstor.org/stable/40397466>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

- Bucher, J., Lazarova, M., & Deller, J. (2025). Digital technology and global mobility: Narrative review and directions for future research. *International Business Review*, 34(1), 102294. <https://doi.org/10.1016/j.ibusrev.2024.102294>
- Camacho, S., & Barrios, A. (2022). Teleworking and technostress: Early consequences of a COVID-19 lockdown. *Cognition, Technology & Work*, 24(3), 441–457. <https://doi.org/10.1007/s10111-022-00693-4>
- Cantwell, J., & Shukla, P. (2025). Spatial development of technological knowledge and the evolution of international business activity across technological paradigms. *International Business Review*, 34(1), Article 102356. <https://doi.org/10.1016/j.ibusrev.2024.102356>
- Charles, L., Xia, S., & Coutts, A. P. (2022). Digitalization and employment: A review. International Labour Organization. <https://www.ilo.org/publications/digitalization-and-employment-review>
- Cijan, A., Jenič, L., Lamovšek, A., & Stemberger, J. (2019). How digitalization changes the workplace. *Dynamic Relationships Management Journal*, 8(1), 3–12. <https://doi.org/10.17708/DRMJ.2019.v08n01a01>
- Cuyppers, I. R. P., Patel, C., Ertug, G., Li, J., & Cuyppers, Y. (2022). Top management teams in international business research: A review and suggestions for future research. *Journal of International Business Studies*, 53(3), 481–515. <https://doi.org/10.1057/s41267-021-00456-9>
- Degbey, W. Y., & Einola, K. (2020). Resilience in virtual teams: Developing the capacity to bounce back. *Applied Psychology*, 69(4), 1301–1337. <https://doi.org/10.1111/apps.12220>
- Demerouti, E., & Bakker, A. B. (2011). The Job Demands–Resources model: Challenges for future research. *SA Journal of Industrial Psychology*, 37(2), Article 974. <https://doi.org/10.4102/sajip.v37i2.974>
- Eriksson, P., & Kovalainen, A. (2015). *Qualitative Methods in Business Research* (2nd ed.). Sage Publications.

- Eurofound. (2020). Regulations to address work-life balance in digital flexible working arrangements. Publications Office of the European Union. <https://www.eurofound.europa.eu/en/publications/2020/regulations-address-work-life-balance-digital-flexibleworking-arrangements>
- Gill, A., Hensvik, L. E., & Nordström Skans, O. (2025). Why are Nordic workers so remote?: Potential causes and (some) indirect labor market consequences (NBER Working Paper No. 33581). National Bureau of Economic Research. <https://doi.org/10.3386/w33581>
- Gobble, M. M. (2018). Digitalization, digitization, and innovation. *Research-Technology Management*, 61(4), 56–59. <https://doi.org/10.1080/08956308.2018.1471280>
- Gorter, D., & Cenoz, J. (2024). Research methods: Quantitative and qualitative approaches. In D. Gorter & J. Cenoz (Eds.), *A panorama of linguistic landscape studies* (pp. 90–128). *Multilingual Matters*. <https://doi.org/10.2307/jj.6947033.8>
- Harju, L. K., Kaltiainen, J., & Hakanen, J. J. (2021). The double-edged sword of job crafting: The effects of job crafting on changes in job demands and employee well-being. *Human Resource Management*, 60(6), 967–983. <https://doi.org/10.1002/hrm.22054>
- Hennart, J.-F. (2019). Digitalized service multinationals and international business theory. *Journal of International Business Studies*, 50(8), 1388–1400. <https://doi.org/10.1057/s41267-019-00256-2>
- Horlings, T., Lindelauf, R., & Rietjens, S. (2023). Battling information overload in military intelligence and security organisations. In *Towards a data-driven military: A multidisciplinary perspective* (pp. 221–236). Leiden University Press. <https://www.ijstor.org/stable/jj.14250136.16>
- Hürtgen, S., & Vogel, B. (2023). The new world of digital work: Structural changes and labour recomposition. In S. Hürtgen & B. Vogel (Eds.), *Labour conflicts in the digital age: A comparative perspective* (pp. 29–50). Bristol University Press. <https://doi.org/10.2307/j.ctv3405pkg.7>

- Kumar, P. S. (2024). Technostress: A comprehensive literature review on dimensions, impacts, and management strategies. *Computers in Human Behavior Reports*, 16, 100475. <https://doi.org/10.1016/j.chbr.2024.100475>
- Kunzelmann, A., & Rigotti, T. (2021). How time pressure is associated with both work engagement and emotional exhaustion: The moderating effects of resilient capabilities at work. *German Journal of Human Resource Management*, 35(3), 309–336. <https://doi.org/10.1177/2397002220952741>
- Li, J., Pan, Y., Yang, Y., & Tse, C. H. (2022). Digital platform attention and international sales: An attention-based view. *Journal of International Business Studies*, 53(8), 1817–1835. <https://doi.org/10.1057/s41267-022-00528-4>
- Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, 13(6), 522–526. <https://doi.org/10.1093/fampra/13.6.522>
- Melnyk, M. (2019). Digitalization and development of digital technologies in Scandinavian countries. *Економіка розвитку систем*, 2(1), 1–7. <https://doi.org/10.32782/2707-8019/2022-1-2>
- Meyer, K. E., Li, J., Brouters, K. D., & Jean, R.-J. B. (2023). International business in the digital age: Global strategies in a world of national institutions. *Journal of International Business Studies*, 54(4), 577–598. <https://doi.org/10.1057/s41267-023-00622-9>
- Miller, S. R., Moore, F., & Eden, L. (2024). Ethics and international business research: Considerations and best practices. *International Business Review*, 33(1), 102207. <https://doi.org/10.1016/j.ibusrev.2023.102207>
- Parviainen, P., Tihinen, M., Kääriäinen, J., & Teppola, S. (2017). Tackling the digitalization challenge: How to benefit from digitalization in practice. *International Journal of Information Systems and Project Management*, 5(1), 63–77. <https://doi.org/10.12821/ijispm050104>
- Rademaker, T., Klingenberg, I., & Süß, S. (2025). Leadership and technostress: A systematic literature review. *Management Review Quarterly*, 75, 429–494. <https://doi.org/10.1007/s11301-023-00385-x>

- Randall, L., Ormstrup Vestergård, L., Rohrer, L., & Huynh, D. (2022). Remote work: Effects on Nordic people, places and planning 2021–2024 (Nordregio Report 2022:3). Nordic Council of Ministers, Nordregio. <https://nordregio.org/publications/remote-work-effects-on-nordic-people-places-and-planning-2021-2024/>
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2023). *Research Methods for Business Students* (9th ed.). Pearson International Content.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315. <https://doi.org/10.1002/job.248>
- Tarafdar, M., Tu, Q., Ragu-Nathan, B. S., & Ragu-Nathan, T. S. (2007). The impact of technostress on role stress and productivity. *Journal of Management Information Systems*, 24(1), 301–328. <https://doi.org/10.2753/MIS0742-1222240109>
- Torp, S., & Reiersen, J. (2020). Globalization, work, and health: A Nordic perspective. *International Journal of Environmental Research and Public Health*, 17(20), 7661. <https://doi.org/10.3390/ijerph17207661>
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- Vyas, L. (2022). “New normal” at work in a post-COVID world: Work–life balance and labor markets. *Policy and Society*, 41(1), 155–167. <https://doi.org/10.1093/pol-soc/puab011>

Appendices

Appendix 1. Interview questions

Section 1: Professional Background and the Nordic MNC context

1. Could you briefly describe your current role in this organization, your main responsibilities and experience?
2. How would you describe working in a Nordic multinational company?

Section 2: Digital Job Demands and Resources

3. How has digitalization changed your daily work and communication in the organization?
 - What kinds of digital tools or systems do you most often use in your work?
 - Have these changes increased your workload or pace of work?
4. What types of digital work demands or pressures do you experience in your work?
 - For example, do you face information overload, constant connectivity, or challenges in managing multiple platforms?
 - How do these demands influence your focus, productivity, or work-life balance?
5. How do you manage with these digital demands in your everyday work?
6. What digital tools or practices best support collaboration across teams or countries in your organization?
7. How would you describe the social and peer support you receive in your digital work environment?
 - How do colleagues or supervisors provide help, feedback, or support when working remotely or in hybrid settings?
 - Have there been situations in digital communication where you experienced a lack of support, exclusion, or negative social interactions, such as increased peer pressure, unclear expectations, or disrespectful communication?
 - If yes, how did this affect your work experience?

8. What role does leadership play in supporting your motivation and engagement in digital or hybrid work?
 - Are there specific communication or leadership styles that you find particularly supportive?
9. Does your organization offer opportunities to develop digital skills or adapt to new digital technologies?
 - If yes, how have these opportunities affected your ability to manage technological change or your overall job satisfaction?

Section 3: Employee Well-being and Engagement

10. How does working with digital tools and technologies affect your overall well-being and motivation at work?
 - In what ways do digitalization and hybrid work improve or challenge your work-life balance?
 - Have you experienced stress, fatigue, or difficulty disconnecting from work due to digital tools?
11. What factors in your work environment help you stay motivated and maintain well-being in a digital context?
 - Are there particular practices or values that contribute to this, such as flexibility, autonomy, or trust with the team?
12. In your opinion, how does your organization promote employee well-being and resilience in a digitalized work environment?
13. Looking ahead, how do you see digitalization influencing well-being in Nordic multinational companies?
 - What do you think organizations could do to ensure a sustainable and supportive digital work culture?

Closing Questions:

14. Is there anything else you would like to add about your experiences with digital work, collaboration and well-being?
15. Do you have any other questions?