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Supporting Organizational Growth Through HR Digital
Transformation

Master's thesis in Governance of Digitalization
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Abstract for Master's thesis

Subject: Governance of Digitalization	
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Title: Supporting organizational growth through HR digital transformation	
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Abstract: <p>We are currently living in the era of digital transformation as our society and ways of working are being affected by the large-scale trend of digitalization. Organizations around the world are building internal capabilities and transforming their business operations using the latest technological innovations to stay competitive and reach their strategic objectives. People are at the heart of any business which is why digital transformation within the Human Resource function is a critical step in ensuring organizational success and growth in the long-term.</p> <p>This study seeks to shed light on an area of management literature that has received little attention, HR digital transformation, and its impacts in organizational growth. The research investigates the experiences and thoughts of HR professionals within Finnish medium-sized growth companies to uncover what is successful HR digital transformation and what are its benefits. To support the notions of the HR professionals, a comprehensive literature review is conducted on digital transformation and its implications for HR. The qualitative research takes on an inductive and exploratory approach and uses thematic analysis to uncover prevalent answers around the research questions.</p> <p>The results of the study indicate the crucial role played by HR digital transformation in organizational growth and in the ability to reach other strategic objectives. With system automation and more effective processes, HR professionals are able to create more value in important strategic tasks and are able to ensure faster and more reliable operations. The benefits of digitalized HR are not limited to HR professionals but are shared among entire organizations from personnel to top leadership. HR professionals highlighted the importance of core HR data management, recruitment, and learning as vital processes that have the most immediate benefits when looking at ensuring sustainable organizational growth.</p>	
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1 Introduction

1.1 Area of research

We are currently living in the era of digital transformation as our society is being affected by the large-scale trend of digitalization (Sotnikova et al., 2020). At its core digitalization affects all of us, bringing new technologies, services, and ways of life to societies worldwide. On an individual level, our behaviour is being transformed at a rapid rate with new opportunities in all aspects of life whether it be e-healthcare solutions, mobile banking, or e-commerce. Fundamentally, these opportunities are brought forward due to the increase in the availability and capability of technology, and the rising expectations and demands of individuals. This fuels the cycle of digital transformation as we begin to understand the capabilities of technology and how it can alter and benefit our everyday lives.

At an organizational level, businesses around the world are also faced with the joint challenges and opportunities to create and offer value to satisfy stakeholder demands both internally and externally. Digitalization is a way to redesign business models, optimize operations for cost savings and deliver competitive advantage in new and innovative ways as the competition becomes fiercer in the global field (Kraus et al., 2021). Some of the most prominent elements of organizational digitalization often focus on leveraging technology to create value in new ways such as altering value propositions, using new value networks and channels, and improving organizational agility. (Neumeier et al., 2017)

Digitalization is being harnessed across industries, and within organizations certain functions are reaping the rewards of developing working methods and improved processes as they are optimal for such transformation (Halid et al., 2020). One of these organizational functions is Human Resources (HR), a support function that is traditionally characterised as transactional, highly process-oriented and consisting of repetitive tasks (Akshay & George, 2017). The digital transformation of HR is a just a small branch of

the overall organizational digital transformation trend that is moving through the global business environment (Halid et al., 2020; Baykal, 2020).

Commonly, HR is one of the late adopters of technology and research shows that HR managers are some of the least knowledgeable about the opportunities provided by digitalization (Aditro, 2019). As organizations grow and expand their operations, they are looking for new ways to gain competitive advantage and create more efficient ways of working (Berisha Qehaja & Kutllovci, 2015). HR digital transformation is vital in terms of ensuring organizational capabilities and progressive internal processes which provide a strong and stable ground for companies to grow and perform to their full potential (Ertemsir & Bal, 2019).

Leveraging technology can bring new approaches and streamline operations across HR and it is a function that can take advantage of digitalization at a large scale (Ertemsir & Bal, 2019). On the top-level, digital transformation in HR can bring both direct and indirect benefits to organizational performance (Halid et al., 2020). Most commonly HR digital transformation can be seen to affect two main business elements, process optimization and labour productivity (Fedorova et al., 2019). Within the HR function itself, a huge benefit of digital transformation is that it frees up a lot of efficient working hours by reducing routine repetitive work, and thus HR will have more resources available to support organizational growth even with small-numbered teams (Sotnikova et al., 2020). This benefit can be realized across the entire organization, as common procedures related to HR processes such as recruitment or onboarding that may take time from supervisors or new recruits are optimized using technology.

Despite the swift push of digitalization, one should note that simply just investing in technology is not sufficient to achieve all the benefits of the digital transformation process, but we must consider how to increase internal competencies and capabilities to facilitate digital transformation and avoid its obstacles. The importance of this aspect of digital transformation is highlighted by several researchers and studies have emphasized that the gap between utilizing digital transformation to its fullest in organizations is most commonly caused by the lack of digital literacy, digital sensibility, and motivation to adopt new technology (Mosca, 2020).

Given the importance of digital transformation and its effect on businesses worldwide, it is crucial to note that current HR literature on digital transformation and e-HRM is still lacking (Halid et al., 2020). It has been recognized in the past that a serious gap in investigative research on the implementation of digital transformation strategies is prevalent as highlighted by Ruel and Bondarouk (2014, p.645), “e-HRM research needs to become more precise. A concept such as implementation is complex and consists of different stages in practice”. This lack in more practical evidence serves as the motivation for this thesis and is supported through recent research by Nachit and Okar (2020).

1.2 Overall aim of the thesis and research questions

The aim of the thesis is to study the views and experiences of HR professionals in order to uncover and understand insights on successful HR digital transformation strategies within Finnish growth companies. The collection of information regarding the stages and process of HR digitalization in growth companies will help to analyse HR digital transformation in a comprehensive manner. The thesis aims to add to the existing literature and provide new findings by drawing knowledge from experts in the field who have experienced the digital transformation process in HR. The thesis is also intended to give an indication of the utilization of digital HR and associated digital solutions as well as discuss the larger themes surrounding HR digitalization within growth companies.

The overall objective of the thesis is to create a roadmap that distinguishes best practice strategic decisions that organizations can make in terms of digital transformation, such as investments in order to enable and support their growth effectively. The thesis will examine the common decisions made by growth organizations in terms of HR digital transformation strategy and identify barriers and challenges related to the process. The research questions of the thesis will be as follows:

Main Research Question

- How can organizations support growth with HR digital transformation?

Secondary Research Questions

- How can organizations achieve successful HR digital transformation?
- What are the benefits of HR digitalization?
- What are the challenges of HR digitalization?

1.3 Structure of the thesis

This thesis will be structured as follows. After an introduction to the topic area and research questions, a literature review is conducted in order to highlight existing knowledge and relevant themes surrounding the research topic. The literature review will cover digital transformation and its specific application for the HR function. HR digital transformation and its prerequisites, strategies and outcomes will be discussed. The thesis will then outline the method used in the research, describing the research approach, sampling, and data analysis methodology. Any ethical considerations and limitations of the research methods will also be highlighted in this section. The thesis will then progress into the analysis section, where the results are presented and interpreted. The thesis concludes with a discussion and presentation of the HR digital transformation roadmap as well as the implications and suggestions of the research for future study on the subject.

2 Literature review

2.1 Digitization and digitalization

To understand digital transformation, we must first make some distinctions between important core concepts: digitization and digitalization. Firstly, digitization is the process of changing from analog to digital form, for example, converting handwritten text to a digital form like a PDF document (Bloomberg, 2018). This digitization transfer is the prerequisite for digitalization to occur.

Secondly, digitalization means integrating digital technologies into everyday activities and processes thus making full use of the potential of digitization (Brennen & Kreiss, 2016). As implied by the definition technology itself does not create digitalization but rather it is a social change process that is created by the opportunities offered by technological development at a societal level. We are all affected by digitalization as it

shapes our everyday life and our behaviour through technology and new ways of thinking (Bloomberg, 2018). Digitalization also opens up opportunities for new and diverse solutions in business as organizational capabilities grow and businesses evolve to satisfy the society's needs at new levels, and the resulting larger change process is called digital transformation (Kraus, 2021).

2.2 Digital transformation

There are several definitions for digital transformation in modern management literature, highlighting the breadth of the term and its underlying implications (Kraus, 2021). Even though most of the literature focuses on the business applications, it must be recalled that “digital transformation comprises changes associated with the application of digital technology in all aspects of human society” as noted by Stolterman et al. (2004, p. 689). Most commonly digital transformation is still linked with organizational development as for example Liu et al. (2011, p. 1728) describe it as “an organizational transformation that integrates digital technologies and business processes in a digital economy”.

Moreover, Poór et al. (2019) describe it as a comprehensive transformation of business activities, competencies, and processes. In the context of this thesis, it is also interesting to note the definition offered by Westerman et al. (2011, p. 5), “Digital transformation is the use of technology to radically improve the performance or reach of enterprises”. This definition links directly to the aim of this thesis to investigate the growth of an organization through digital transformation.

The digital transformation process is an ongoing journey rather than an individual project or development action where organizations change their operations and their mindsets towards a more digital future (Tomičić Furjan et al., 2020). It constantly opens new opportunities and new organizational structures, business models, cultures and customer interactions as the by-product of digitalization in the modern business environment as organizations take on the digital transformation process (Hess et al., 2016; Kraus et al., 2021). As mentioned, digital transformation also refers to the strategies and actions taken by organizations to actively utilize the opportunities offered by digitalization as they adopt new technologies and ways of working (Tomičić Furjan et al., 2020). This

transformation is commonly engaged in to create more value whether it be to customers or other stakeholders, as organizations are forced to react to changing business demands and market drivers (Hess et al., 2016).

Digital transformation at its very core is comprised of two elements, technology and people. The current digitalized world offers a multitude of opportunities for organizations to develop their processes and implement new technology, but all of that relies on the ability of people to adopt said technologies and activities. Not only will organizations need to upskill their personnel, but they must also consider the implementation of new emergent roles such as Digital Transformation Managers or Chief Digital Officers to govern digital transformation in a strategic and comprehensive manner (Henriette et al., 2016; Tomičić Furjan et al., 2020).

2.3 Approaches to digital transformation

Organizations can take several approaches to digital transformation, and the choice is generally dependent of the resources, culture, maturity and market demands of the specific organization (Hess et al., 2016). Organizations may transform incrementally, attempting to change existing processes and ways of working in small steps in order to not disrupt operations at a large scale or comprehensively with major overhauls of operations to change the fundamentals of the business. While it is important to note that not all organizations will take the same route as they have different resources at their disposal and different business targets, they still all share the same vision to acquire competitive advantage through digital transformation. When looking at the focus points digital transformation, research has shown that organizations are slightly more likely to invest in digital transformation which is targeted at their customers rather than their own employees or their internal people management practices (Blštáková et al., 2020).

Whether organizations focus more on external or internal stakeholders, the key goal for organizations is to manage the transformation process in a strategic and sustainable way to ensure success and long-lasting benefits. Usually these are achieved through digital transformation strategies which direct organizations to analyse and revise their operations

and resources to fit the new digital era. As Korachi and Bounabat, (2020) highlight in their research, organizations may have different strategies for digital transformation, but the core elements include business strategy alignment, processes on IT prioritization and decisions on IT investments in addition to other relevant IT related issues. In order to begin the digital transformation process, organizations typically evaluate their current status of digitalization and digital transformation and devise strategies moving forward (Dorkenoo et al., 2016).

2.4 Benefits and challenges of digital transformation

There are several benefits to digital transformation, most commonly revolving around organizations developing their products and services to better meet customer demands or developing their overall operations in the current global business environment (Correani et al., 2020). Management literature and research highlight that the most prominent advantages of digital transformation are improved service and cost efficiency, improved customer experience, shorter time-to-market processes and increased connectivity to key stakeholders (Albukhitan, 2020; Correani et al., 2020). For example, when Vodafone began its strategic digital transformation process to improve customer support through AI and automated services, it was noted that customer insight was improved which led to more personalized services and faster execution of routine operations (Correani et al., 2020).

Organizations are also more inclined to find new opportunities for profitability and the creation of competitive advantage through innovation and new business opportunities as their collaboration and decision-making capacities are increased through the use of digital tools (Zaki, 2019). Poór et al. (2019) highlighted the link between profitability and digital transformation in their research as they found that generally more profitable companies were able to allocate more resources to digital transformation which in turn contributed to more profitable operations and gave them competitive advantage.

On the other hand, digital transformation does not come without its challenges as organizations try to grasp new digital strategies or implement new technologies to everyday working. Correani et al. (2020) highlights that the disconnect between digital

transformation strategy and the actual implementation is one of the biggest challenges that organizations face, and which most commonly leads to a failure in the transformation process. This disconnect is likely due to the complexity of the transformation process which may result in unpredicted use of significant resources in both time and money for organizations.

The absence of relevant knowledge may hinder adoption of new technology and may result in costly investments as personnel must be trained. Some organizations and personnel may also be shocked by the disruption the transformation causes to their established ways of working resulting in resistance to change. Moreover, Albukhitan (2020) notes that security concerns related to cyber-attacks are a relevant risk for organizations as they become more dependent on digital tools.

As noted previously, digital transformation affects all areas of organizations and their business, and as such the benefits and disadvantages of the transformation process can imply fundamental changes to any organization. The process brings numerous benefits including increased efficiency, new business opportunities and better customer satisfaction. On the other hand, there are several risks in the transformation as businesses become increasingly dependent on technology, they risk becoming vulnerable to cyber-attacks, they may have to invest significant amounts to training and development initiatives, and they risk disrupting existing processes. All in all, organizations need to carefully consider the potential in the transformation process and determine the best courses for action with relevant transformation strategies.

2.5 Human Resources

According to Rihan's definition (1998), "human resources is a function in organizations designed to maximize employee performance in service of their employer's strategic objectives". This definition highlights the key purpose of HR which is to create value but in reality, the roles and responsibilities of HR are much more complicated and differ between organizations (Ulrich et al., 2008). As a central function HR focuses on implementing human resource management processes and practices that affect performance, rewarding, well-being, culture and many other important aspects of the

organization and its personnel (Armstrong & Taylor, 2020). This multitude in HR operations can be understood through Figure 1 on the HR roles within organization by Ulrich (1996) which portrays the four key roles; strategic partner, change agent, administrative expert and employee champion. These HR roles can be seen as requisites for HR to undertake to ensure success in different dimensions of the organization. Whilst being a relatively old description of the HR roles in organization, the model is still used widely and accepted by both HR professionals and researchers as accurate.

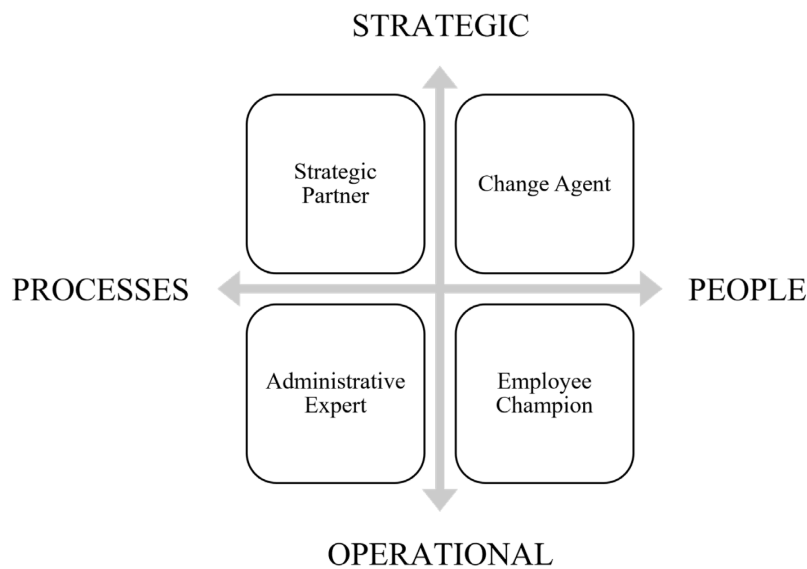


Figure 1. HR Roles in Building a Competitive Organization (Ulrich, 1996)

The role of HR within organizations has transformed from being viewed as a typical service to more of a business partner that can help shape and implement business strategy (Maugans, 2015; Ulrich & Dulebohn, 2015). As seen above in Ulrich's (1996) model of HR roles (Figure 1.) the current shift in perception of HR can be interpreted as a greater emphasis being placed on the strategic focus where HR is understood as a strategic partner and change agent that can help manage organizational strategy and transformation. One of the drivers of this change is the digitalization megatrend, as HR is able to utilize and develop organizational capabilities related to new technologies (Nachit & Okar, 2020). This also includes the development of the HR function's capabilities which enable HR to be for example a more data-driven decision-maker which directly increases the ability for strategic management of human resources (Zehir et al., 2020).

When examining HR and the specific competencies required with HR functions in more detail, it can be clearly seen that digitalization will play a crucial role in defining organization's capabilities. Research by Ulrich et al. (2013) concluded that "for HR professionals to drive business performance, they need to master technology and information". This also became evident from Ulrich et al. (2013) model of HR Competencies (Figure 2.) that highlights the importance of HR professional being technology proponents within organizations who effectively utilize and advocate technology. It is important to note that the other competencies within the model also have great implications on organization-wide digital transformation as HR can help build capabilities, drive change processes, and show the way through integration of technology to everyday operations.

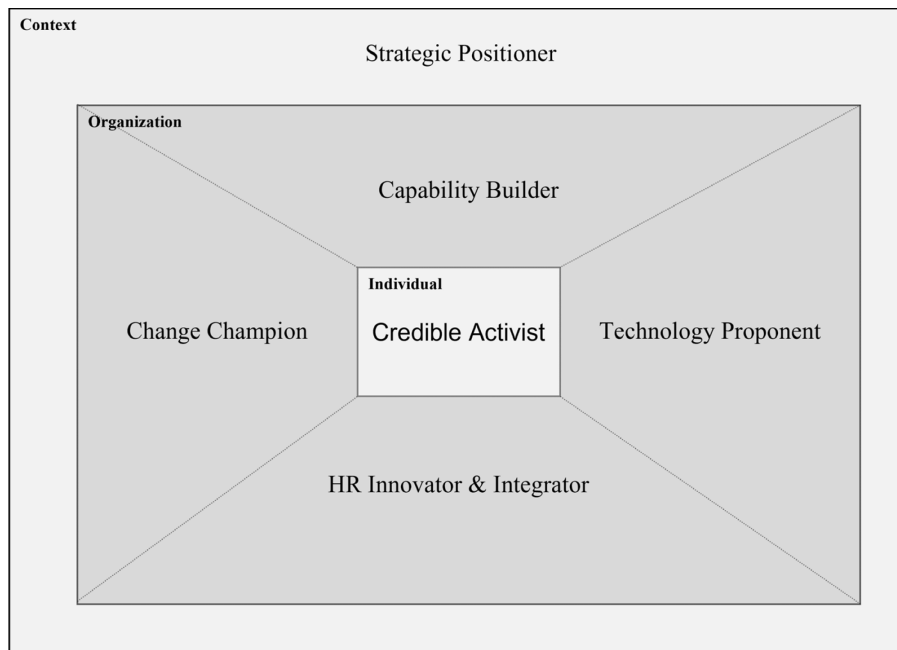


Figure 2. HR Competencies (Ulrich et al., 2013)

2.6 HR digital transformation

HR digital transformation encompasses an organization's actions to improve its operational efficiency by utilising information technology, applications, the internet, integration, and e-services with the aim to build more effective and sustainable capabilities in delivering HR supportive services and processes for the organization (Sotnikova et al., 2020; Sorko et al., 2016). Digital transformation allows the HR function

to become more data-driven and affects HR practices such as workforce planning, competence development, employee engagement and reporting (Zehir et al., 2020). In addition to that, digital transformation and the inherent digitalization allows HR functions to concentrate more on value adding operations such as recruitment or performance management rather than routine administrative tasks (Zehir et al., 2020). This aids the organizations to reach their larger strategic objectives, such as growth or profitability, more efficiently (Baykal, 2020; Jani et al., 2021).

The importance of HR digital transformation on organizational performance is highlighted by Salim and Sulphery (2021) as the authors noted in their research that “Digital Human Resource Management has a highly significant impact on organizational performance”. Managing human resources digitally and supporting retention, trainings and collaboration with the use of modern technologies has been recognized as enhancing organizational performance and growth (Jani et al., 2021; Rafiki, 2020). Moreover, this link between HR digital transformation and organizational performance is supported by other research in the management literature (Halid, 2020; Varadaraj & Al Wadi, 2021).

The HR digital transformation process assists organizations in achieving e-HRM, which is defined as a “term covering all possible integration mechanisms and contents between HRM and Information Technologies aiming at creating value” (Bondarouk & Ruël 2009, p. 507). The concept illustrates a state of Human Resource Management and its related processes that utilize technology at all levels of operations (Baykal, 2020). Offering a more detailed description, Strohmeier (2007, p.22) illustrates it as the following, “e-HRM is the application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities.” This definition highlights the preferred end state of e-HRM which is the distribution of HRM related tasks between the HR function, the employees and the managers of an organization. The concept of e-HRM sees technology as a supporting tool that connects individuals within organizations and that can partially or completely execute tasks on behalf of human actors in order to streamline and automate operations.

A study by Hirvonen and Majuri (2020), showed that in Finland the level of HR digital capabilities is perceived to be well-established, which means that organizations have

recognized the need for HR digitalization and are acting upon it. A large part of this recognition is dependent on organizational stakeholders such as employees and their acceptance and awareness of the benefits of the digital transformation of HR (Hegedus, 2020). They play a key role in digital HR as they are also commonly the end users of new HR technology which makes them essential for success in digital transformation process in HR (Platanou & Mäkelä, 2016). The applications for e-HRM and the different opportunities that are present for digitalization in the HR department are described in more detail in the following chapter.

2.7 Opportunities for HR digital transformation

Literature on HRM highlights various approaches to describe the opportunities for digital transformation and technological influence in HR (Gaponenko et al., 2021). One of the most practical and observable approaches is to define the opportunities for digitalization through the main organizational elements that HR work revolves around and the development of the work itself. The following section will combine key organizational elements from recent literature as well as offer insight into the different types of HR activities to comprehensively discuss opportunities for digital transformation.

HR can be connected by digital technologies to several organizational elements such as the work within the organization, physical and virtual workplaces and the workforce that combines both the actual and potential personnel of an organization (Gaponenko et al., 2021; Platanou & Mäkelä, 2016). Digital HRM is a possibility within all these three areas as digitalization creates opportunities within HR activities to for example impact processes within the entire employee lifecycle from recruitment to retirement and facilitate evolving organizations through innovations and new technologies (Gaponenko et al., 2021). However, it must be noted that even though organizations theoretically can digitalize their operations in all the areas mentioned in Figure 3, in reality the organizational strategy and resources play a key role in enabling these opportunities (Gaponenko et al., 2021). The subsequent paragraphs will establish the organizational elements within Figure 3 in more detail and provide examples for opportunities to digitally transform HR activities.

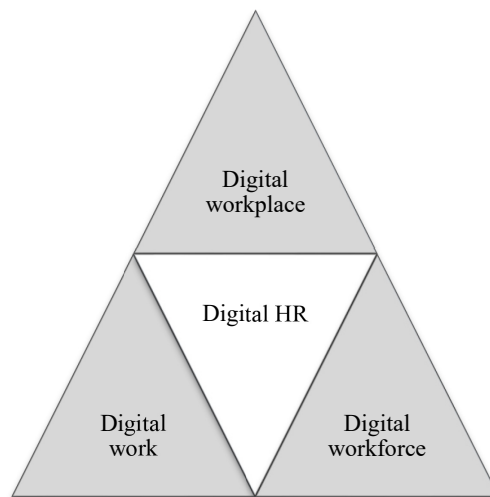


Figure 3. Digital HR within organizations (adapted from Gaponenko et al., 2021)

Firstly, digital work embodies the core activities of HR work that can develop as digitalization and innovative approaches offer new opportunities to automate and optimize practices (Halid et al., 2019). This is especially relevant as HR work has traditionally been classified as very operational and administratively burdensome, which contributes heavily to the opportunities provided by digitalization. Specifically, HR professionals currently have opportunities to use a variety of systems and tools to support or manage their practices (Halid et al., 2019). These systems are typically centred around the main focus areas of HRM such as core HR information management, workforce management and talent management (Okuneva, 2018). The use of different systems in e-HRM contributes directly to the service delivery quality and capabilities of HR functions (Baykal, 2020; Platanou & Mäkelä, 2016).

Secondly, the current information era and subsequent digital transformation within businesses has also evolved working environments and workplaces (Gaponenko et al., 2021). Digital workplaces are created and facilitated through the use of technology and allow employees to collaborate, communicate and connect more seamlessly within the global business environment (Kanafi, 2019). This leads to HR professionals being faced with both opportunities and challenges to ensure relevant competencies, drive and govern technology use, and align the digital workplace according to business needs. For example, the current situation with the Covid-19 pandemic has dramatically shifted the focus from collective offices to enabling remote working and flexible workplaces. This

has increased the pressure of organizations to facilitate some of their operations virtually and created the challenge for especially HR functions to ensure connectiveness and performance management (Al-Alawi et al., 2023).

Lastly, the digital workforce refers to the modern digital workers who are affected by developing management methods and organizational cultures that rely more heavily on digital tools (Halid et al., 2019). According to Platanou and Mäkelä (2016), we are currently witnessing a global workforce that consists of four different generations with varying mindsets on the application and opportunities provided by technology. HR is inherently connected to this changing workforce and is largely responsible for creating management practices, the employee experience and culture that guides the employee lifecycle (Gaponenko et al., 2021). HR is also heavily involved in the competency development of the workforce which is traditionally actioned through training and in the case of e-HRM, the opportunities to digitalize training initiatives have become commonplace in modern organizations through e-learning. Managing and developing the digital workforce creates lots of opportunities and needs for digital transformation as utilization of workforce management systems, talent management systems and recruitment systems are considered vital to be able to serve the different needs within the complex workforce (Gaponenko et al., 2021). These systems have tremendous impacts on both HR service effectiveness and employee commitment and engagement, thus impacting overall business success positively.

2.8 Case example: Hitachi

Hitachi is as Japanese multinational corporation that operates in multiple business segments such as telecommunication, automotive and digital media. Facing the rapid development of digitalization and in attempts to harness the benefits, Hitachi wanted to increase the number of crucial data scientists within the global Hitachi Group workforce (Ariyoshi, 2018). They faced several challenges in this regard, as hiring data scientists was recognized to be difficult and costly, and thus they had to think of alternative solutions. They ended up establishing programs for educating and training data scientists in order to fill vacancies and develop existing talent (Ariyoshi, 2018). At the same time Hitachi also implemented the use of a human capital management integrated platform

running on Workday cloud for about 250 000 global employees (Tateda, 2018). The implementation of the human capital management integrated platform allowed Hitachi more effectively plan, organize and evaluate development activities and competencies mappings especially within the critical employee group of data scientists. The platform demonstrated concrete benefits through data provisioning for decision-making and increased efficiency of HR processes, which allowed Hitachi to reach their critical strategical objectives in recruitment and effectively manage a current workforce challenge that organizations worldwide are struggling with (Tateda, 2018). This case example clearly demonstrates the importance of HR digital transformation to organizational performance such as growth and how digitalization can improve the efficiency of HR processes.

2.9 Prerequisites of HR digital transformation

As established in the previous chapter, the effects of digital transformation can be seen in various HR operations and responsibility areas. Before moving on to the prominent topic of technology within the sphere of HR it is important to consider some the prerequisites of establishing digital transformation in HR as technology by itself does not solve the issues that organizations face when embarking on the transformation journey. There are several aspects and attributes that organizations must consider before commencing the transformation process such as the organizations culture, existing competencies, maturity and resources (Berghaus, S., & Back, A. 2016; Dorkenoo et al., 2016)

Organizational culture has an important impact on the success of digital transformation within an organization (Storhaye, 2016). Culture influences behaviour and attitudes within a workplace and thus shapes how personnel approach and view new technologies and processes that are associated with digital transformation. Establishing a positive and supportive culture and environment encourages personnel to try new initiatives lowering their resistance to change in the face of disruption to the old ways of working (Storhaye, 2016). In addition to common cultural aspects, especially the senior management and leadership must display executive support for the transformation process to build strong motivation and trust towards all development actions (Jin, 2021).

In terms of competencies, any organization must be aware of the necessary competencies and proficiencies required to establish comprehensive change through the HR digital transformation process and ensure its long-lasting benefits (Florkowski, 2018). The requirements must be met by both the personnel of the HR function and the end users of the potential technologies implemented into organizational use (Jin, 2021). From the HR department's viewpoint, competencies related to system administration, data-analytics and communication will be required as HR responsibilities will include system main-user duties as well as generating reports and utilizing the data that is generated by HR systems and tools (DiRomualdo et al., 2018). HR is also generally regarded as catalysts of digital transformation through their support and training initiatives. From the larger organizations, competencies revolving around technological acumen, adaptability and problem-solving will be in high regard when implementing new technologies and integrating them to existing work practices and processes (Nachit & Okar, 2020).

Maturity and resources often go hand in hand within organizations as mature organizations typically have more resources available for development actions (Matt et al., 2015). In terms of digital transformation, HR or otherwise, organizations must be prepared to invest significant amounts of time and money to establish long term benefits of digital transformation. The complexity of digital transformation requires organizations to consider all elements of the organization as mentioned before and thus projects related to digital transformation are major investments. Purchasing new systems and tools, their implementations with potential partners, internal resourcing of project teams, annual licencing fees along with other sizable costs require organizations to carefully think if they are prepared to take on large digital transformation processes and consider if they are mature enough in experience and structure to achieve successful digital transformation (Jin, 2021; Shirase et al., 2023).

2.10 HR technology

The state of HR technology is evolving constantly as innovations and changing business needs drive more functional applications and integrated solutions. According to Bersin's HR technology report (2021) there are 12 major market categories established by HR

technology vendors which are driven directly by organizational needs. As displayed in Figure 4, the different market categories take on a comprehensive look at digitalizing HR activities and we can identify solution categories targeted at core HR work, the digital workforce and the digital workplace, as mentioned previously. The current HR technology market is being described as a “systems of work”-oriented market. This means that organizations are looking for HR tools to be integrated into popular working platforms such as Teams or Slack, as well as looking for cloud-based and agile systems with possibilities for embedded AI.

Furthermore, these current needs have also driven the HR technology vendors to diversify their solutions and offer one-stop systems for all the organizational needs such as data management, recruitment and learning. In terms of different solution ecosystems, the possibilities of SaaS and cloud-based technologies have also opened the playing field for small and medium-sized organizations to use developing technology and increase adoption of new technology at a global level. The following section will review some of the current technology trends and systems available to HR functions globally.



Figure 4. HR Technology market categories (Bersin, 2021)

2.10.1 Core HR platforms

One of the key advancements that digitalization has provided to HR over the years is the development of Human Resource Management Systems (HRMS) that allow HR professionals to acquire, store, manage and utilize important information on an organization's human resources more accurately and efficiently (Chakraborty, 2013). The market for HRMS solutions is \$8 billion in the US alone and there is a multitude of vendors such as Workday, Oracle and SAP being the biggest who offer solutions worldwide. These systems may appear as standalone tools or be a collection of networked tools that in combination assist in HRM practices and serve as key digital touchpoints in everyday work. There are also different ecosystem types for HRMS solutions such as on-premise or cloud-based. For example, the Software as a Service (SaaS) options are especially beneficial for smaller organizations that do not have proper internal capabilities but want access to similar HR service quality as larger organizations (Johnson & Gueutal, 2011).

In the light of the e-HRM concept and the goal to distribute responsibilities regarding HRM tasks, the HRMS tools are also becoming more accessible to all organizational stakeholders and commonly contain elements of self-service applications (Chakraborty, 2013). Furthermore, the application of HRMS is also recognized to be of vital support in strategic tasks such as performance management, planning and recruitment, and thus providing more value to the HR function and organization all together (Halid et al., 2019). In conclusion, HRMS solutions can already be identified as vital for effective HR operations and the current technology markets support the availability of such solutions worldwide, irrespective of organization size or industry.

2.10.2 Recruitment solutions

Another core area of HRM that has benefitted from digitalization is recruitment (Baykal, 2020). There are currently several options for specific e-recruitment tools such as LinkedIn Talent Hub and SuccessFactors, and HRMS integrations through systems such as the abovementioned Workday and Oracle that allow HR functions to carry out

recruitment processes through web-based technologies. In the case of e-recruitment, the technology supports organizations in reaching vast amounts of candidates, sharing information effectively and handling applications using self-service methods, saving valuable time of the HR professionals and hiring managers (Baykal, 2020; Johnson & Gueutal, 2011).

Recent trends also suggest that importance of embedded AI is increasing as it has applications for streamlining processes. Recruitment solutions also improve the cooperation and systematisms within the recruitment process as responsibilities can be shared and certain automated tasks can be handled by advanced tools, for example testing and preliminary screening of applications (Baykal, 2020). For growing organizations, the use of e-recruitment technology allows access to global talent pools and streamlines recruitment practices to ensure capability to withstand the high workload (Johnson & Gueutal, 2011).

2.10.3 Learning and development solutions

As mentioned before, an essential part of HRM is also to ensure the correct level of competency among the personnel and to build it throughout the organization to achieve a competitive advantage. Current technologies support this competency development through modern Learning Experience Platforms (LXP) and traditional Learning Management Systems (LMS). These solutions combine various methods of training for example e-learning, which refers to a training method that provides competency development actions through web and computer-based technologies. These technologies allow for asynchronous training of large groups of people, standardized training quality with use of various multimedia sources and distance learning to provide cost effective and efficient training globally (Sotnikova et al., 2020; Bannikov & Abzeldinova, 2020; Halid et al., 2019). It is important to note that as e-learning is provided through web-based technologies, even smaller organizations have access to high-quality training materials from external providers decreasing the knowledge gap between different sized organizations (Johnson & Gueutal, 2011). Moreover, HR professionals can utilize the e-learning technologies for improved organizational knowledge management and enhance their reporting practices through automatized training records and associated analytics.

2.11 HR digital transformation strategies

There are different strategies that organizations take in their HR digital transformation journeys. One of the key determinants of the HR digital transformation strategy and the adoption of specific HR digital tools are organizational resources and especially financial resources, which is why dedicated digital transformation strategies are more prevalent in mature organizations (Matt et al., 2015). This notion is also supported by Strohmeier's (2007) research as they concluded that the size of an organization usually determines the scope and intensity of digitalization in HR. The research also highlighted other probably contextual factors such as sectoral or national differences that could be affecting digitalization, but no conclusions could be drawn yet due to limited evidence (Strohmeier, 2007). The characteristics of an organization or the industry it operates in are also influencing factors for specific digital transformation strategies. Baykal (2020) highlights that the tendency to have more clerical tasks, spread out geographical locations and especially high levels of recruitment are predictors for more frequent use of digital HR tools and e-HRM adoption.

Research by Nachit and Okar (2020), focused on HR digital transformation roadmaps as they identified different types of HR digitalization and analyzed prevalent roadmaps of HR digital transformation. Their principal research question was to identify the essential steps of a successful HR digital transformation roadmap (Nachit & Okar, 2020). The researchers studied specific roadmaps such as industry 4.0 application on HR, e-HRM roadmap and several proposed general digital transformation roadmaps for the HR function. Ultimately the analysis concluded that there were several common steps between the proposed strategies for HR digital transformation and these include digital skills, digital strategy, adopted technology, allocated budget measures evaluation, culture and digital maturity (Nachit & Okar, 2020). The researchers noted that success was dependent on for example the right digital competencies, an interlinked digital strategy with IT, appropriate choices of technology and active participation of the personnel (Nachit & Okar, 2020).

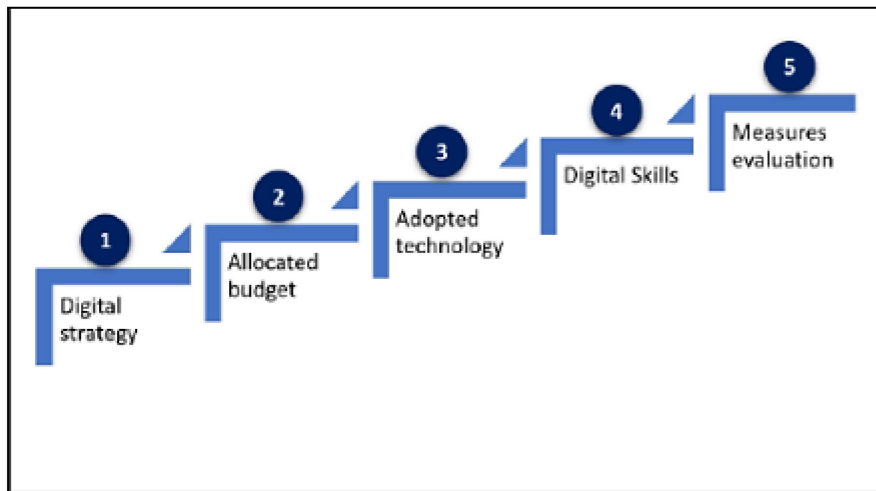


Figure 5. Roadmap for digital transformation of HR (Nachit and Okar, 2020).

Furthermore, taking a more forward approach to digital transformation strategies, Barber (2004) introduces a model for e-HRM strategy formation (Figure 6.) based on Ulrich's (1996) HR function roles also described previously in this thesis (Figure 1.). This model displays three main paths for e-HRM strategy formulation in which the primary HR roles and deliverables are key in determining how organizations will digitally transform their HR function and what are the objectives that they wish to reach with digital HR.

The model argues that even though HR functions execute towards several strategic goals at once, a single "must have" goal will always dominate due to organizational pressure, and this is why HR will prioritize a particular e-HRM strategy. The particular e-HRM strategy reflects the organization's best practice model for implementing e-HRM solutions to reach their specific goals. This model identifies the key areas of e-HRM strategy formulation but lacks in distinguishing specific e-HRM strategy implementation actions or roadmaps as the author suggests that further research is needed in "synthesizing conceptualization of various e-HRM implementation" (Barber, 2004, p.525).

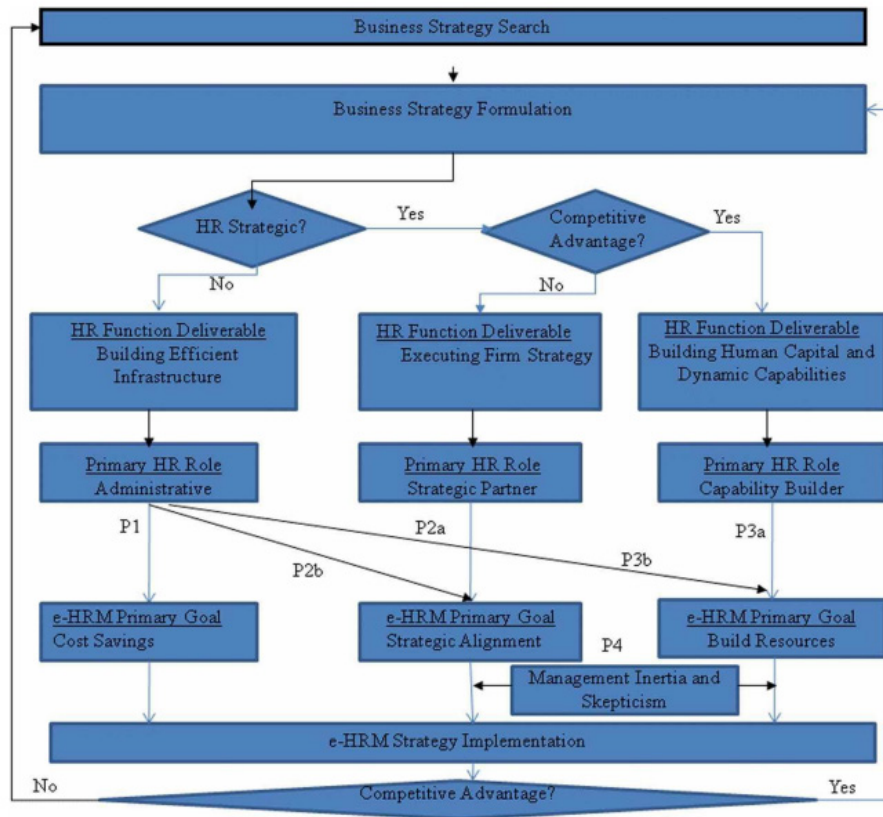


Figure 6. Model of e-HRM strategy formulation. (Barber, 2004, p.518)

The differences in digital transformation strategies can also be observed from the supportive materials provided by different HR consultancy and software service providers. For example, a CGI report on HR digitalization highlights that organizations should begin their digitalization process from the HR practice that holds the highest return on investment in terms of time saved by HR professionals and employees alike (Keso & Suuniitty, 2019). The following HR processes are listed in the report as key starting points: creation of employment contracts, registering changes in employment relationships, holiday and absence notifications, travel and expense invoice processing.

On the other hand, Aditro’s report (2019) takes on a slightly different approach as they instruct to begin the transformation process by mapping out the simplest processes that create the most value. They continue with advice to digitalize or automate laborious processes such as time reporting, shift changes between colleagues, handling receipts, holiday applications, and absence management before moving on to more complex cases.

The next step should be key HR processes in the field of managerial and employee support, such as recruitment, the system for setting goals and development discussions, and tools for filling vacancies internally, and organizations should always start with the intention to simplify work.

2.12 Benefits of digital HR

There are several benefits to HR digitalization and how the transformation process impacts both the HR function and the organizations as whole (Platanou & Mäkelä, 2016). Research by Mosca (2020) identified that the five key benefits that HR digitalization brought were: increased cost savings, efficiency, effectiveness, employee relationship and enabling new employment forms. The benefit of cost savings is a popular finding, and it is usually linked to the resource expenditure on repetitive tasks which are transformed with automation to free up the time of HR professionals (Shirase et al., 2023). This frequent connection to reduction of costs through automatized work highlights an important notion that HR digitalization allows organizations to reduce costs in this specific action, rather than the whole operating costs of the function which may ultimately be increased through the adoption of new technology and systems.

In terms of efficiency and effectiveness, it can be argued that digitalization speeds up HR processes and thus increases productivity and value created by HR (Baykal, 2020). Adopting new technologies allow for flexible working, reduces time-consuming administrative tasks and increase the operational quality of the work (Sotnikova et al., 2020). In regard to the increased quality, research by Vuori (2021) highlighted that for example the adoption of a Human Resource Information System (HRIS) within an organization was seen to decrease the occurrence and risks of human mistakes within data handling. Moreover, the ability to standardize HR processes more efficiently and offer same service quality at a global level due to technology has been noted by various researchers (Baykal, 2020; Parry & Tyson, 2011).

Digitalization is also seen to affect the employee relationships within organizations as digital tools and services have been seen to bring people together, stay more informed about current events and be more motivated about their work (Shirase et al., 2023).

Research by Murphy (2018) highlighted that people felt more connected and committed to the organization and each other after the adoption of digital tools for e.g. communication. Similarly, Fedorova et al. (2019) concluded in their research that employees were more motivated to improve and increase their performance after digital tools were adopted to manage and monitor work.

The adoption of digital tools for work also allows organizations to support different forms of employment as work becomes more flexible (Shirase et al., 2023). The performance of work is becoming less tied to a specific location such as an office as digital tools allow employees to stay connected around the world and in real-time. This benefit has been extremely prevalent in recent times during the Covid-19 pandemic as employees have adopted to working from home or in hybrid models, spending increased amounts of time away from corporate offices (Al-Alawi et al., 2023).

2.13 Challenges of digital HR

Even though the digitalization of HR brings a number of improvements and benefits to the operations of the HR function, there are some disadvantages and risks to it. Some of the challenges of HR digitalization noted by for example Mosca (2020) include: data security risks and lack competence both for utilization and adoption of the new technology. The use of new technologies and systems may bring forth unseen risks in data management as processes are handled through third party software or unfamiliar tools which may cause increased risks of human error (Jin, 2021). Leaning onto increased amounts of technology can create an influx of data to be managed which may hinder the HR operations if not planned for.

Therefore, HR functions must be prepared with applicable competencies and resources to handle new systems and the workload that comes with managing them. As noted by Mosca (2020), disadvantages such as poor adoptability and end use can be caused by lacking competence which is why organizations must pay attention to their competence development throughout the company and ensure sufficient capabilities when undertaking digital transformation. We must also remember that digitalization does not

solve all the issues with HR management and that sometimes the human factor and personal service provided is the best course of action.

3 Methodology

3.1 Research approach

This thesis took an inductive approach to research and investigated how HR digital transformation can support organizational growth in medium-sized organizations. The inductive approach is achieved through qualitative research in which a series of semi-structured interviews were conducted to build a comprehensive model of successful HR digital transformation. The inductive approach strives for explorative and data intensive findings to determine new frameworks and guide the understanding around the concept of HR digitalization. This approach was chosen for this thesis due to its prevalence and strengths associated within business research as it allows for deeper understanding of experiences.

Furthermore, as introduced in the beginning of this thesis, there is a significant gap in the practical research within HR digital transformation which is why the inductive approach is optimal for building new frameworks. At its core, this thesis collects highly relevant qualitative data which supports the building of new conceptual theory and providing value to existing literature within the field of HR.

The research seeks to identify emerging themes and key implications regarding HR digital transformation and to draw conclusions from expert observations and experiences. Using a qualitative research method, rich data and valuable insights on the perceptions and views of the HR professionals were gathered. The method was also supported by structural limitations within the research in terms of the researcher's limited personal capacity to conduct large scale investigations. Thus, a smaller scale qualitative research and in-depth review was seen as optimal instead of a quantitative study which focuses on larger sample sizes and statistical analysis.

3.2 Time horizon

The research within this thesis aimed to provide a snapshot of how different organizations have implemented HR digital transformation as part of the cross-sectional study. The decision to conduct a cross-sectional study instead of a longitudinal study is based on the time restraints within the thesis process and it allowed for more diverse views on the phenomena of HR digital transformation as resources could be directed at a larger sample. Another key benefit was that the data collection could be conducted over a short period of time increasing the efficiency of the process.

3.3 Sampling

The sample used in the research of this thesis consists of HR professionals in various Finnish based medium-sized companies that had experience notable growth in the past years and had established experience of HR digital transformation due to their role. Due to the narrow focus of the thesis, the non-probability sampling method of judgemental sampling was used to ensure comprehensive and rich data towards the thesis objectives. Initially the sample size was limited to 10 participants in order to constrict the workload of the analysis, while ensuring that there is enough depth and a variety of views to support the objectives of the thesis. In the end, a total of 5 participants were able to take part in the research, all with over 10 years of experience in the field of HR or associated roles. All the participants were in manager-level roles, with some in executive positions.

#	Professional Title	Years of experience in HR
1	Chief HR Officer	12
2	People Operations Lead	11
3	Chief People & Culture Officer	15
4	HR Manager	15
5	People Operations Lead	14

Table 1. Information on interviewees

3.4 Data collection and interview schedule

The primary data for this thesis was collected through semi-structured interviews. The interview schedule consisted of 13 questions that were constructed to gather experiences and identify relevant themes (Appendix 1). Interview schedules also incorporated probing questions to assist in uncovering more details and support participants understanding the key questions. The interviewed participants were given the opportunity to disclose their experiences in detail and encouraged to openly examine and evaluate events.

The interviews were recorded through Teams or Zoom, and research notes were taken throughout the interviews to record any other significant findings. The researcher took initiative in guiding the interview within the set schedule and to ensure that all data was relevant. To accommodate to the interview situation and ensure more detailed responses, the participants were provided with the interview schedule before the actual interviews.

The conducted interviews were fully anonymized to limit any recognition of organizations or individual as the topic area may be considered of strategic importance and thus may be seen as confidential information. The professional titles of the participants have been altered in some cases to remove unique values which may have been used to identify the participants. Throughout the interviews, special care was taken to ensure that ethical measures and guidelines were followed. The researchers conducted thorough preparations before the interviews and familiarized with concepts of bias to develop personal interviewer skills with the objective to avoid bias or researcher errors during the process.

The interview schedule was separated into three distinct sections. The first part was designed to identify the participants and to establish their experiences within the subject area. This section allowed for extended understanding of the context for the subsequent answers. The first questions determined the current position, years of experience within the field of HR and their own definition for the concept of HR digital transformation.

The second part of the interview dived deeper into the experiences of the HR professionals and asked them to share their concrete examples of HR digital transformation from their current or previous employers. The section was built in a linear fashion to firstly determine organizational prerequisites before digital transformation,

moving on to surrounding themes such as decision-making structure until finally building a roadmap frame on specific HR systems and their adoption schedule.

The third part of the interview was more focused on evaluating the impact of HR digital transformation within organizations and how the HR professional perceived success of HR digital transformation. The last part of the interview also prompted the HR professionals to crucially evaluate what they would have done differently in digital transformation projects, or the process as a whole based on their previous experiences. The aim was to collect valuable personal insights from HR professionals and to uncover best practices within HR digital transformation.

3.5 Data analysis

Thematic data analysis was conducted on the interviews of this thesis to uncover patterns of meaning and highlight key dimensions regarding the research questions. The interviews were all transcribed electronically using the interview software, from which they were translated to English from the original interview language of Finnish. Care was taken to ensure that the text was translated accurately and that the expressions of the interviewees held the same meaning after translations. After the transcriptions and translations, the texts were thematically coded using appropriate software, and the interviews compared with each other. Using software to code the data has been proven to increase the accuracy and ease the process (Basset, 2004). The texts were revised several times in order to dismiss non-relevant topics and the codes refined to reach clearer conclusions and unified themes as the answers were often very varied. The key themes and highlighted findings were used together with the existing literature to critically analyze and discuss the research questions of this thesis.

3.6 Limitations

The application and generalization of the results of this thesis study are limited due to several aspects of the research approach and sample. This thesis is based on a comprehensive literature review, but only a small sample qualitative research on Finnish based medium sized companies and thus the results of the primary research cannot be

seen as comprehensively representing the larger community of businesses. In addition, it was evident that the companies represented in this study were at different stages of maturity in digital transformation and thus showed variance in the HR professionals' ability to provide answers to the research questions. Despite the limitations, this research serves as a starting point for further studies and opened new avenues of research to further support the insights and experiences of the HR professionals as they navigate HR digital transformation.

3.7 Ethical considerations

Due to the nature of the research within this thesis, several ethical considerations were applied throughout the process. All the participants of the study were duly informed about the process of the study and their rights regarding voluntary participation and data handling. Informed consent was received from each participant of the interviews and care was taken to ensure the anonymity of each participant as their answer could hold confidential information regarding their company or its strategy. All in all, ethical aspects were actively acknowledged and reflected throughout the thesis research and interview process.

4 Results and analysis

4.1 Concept of HR digital transformation

HR digital transformation is a challenging concept as even management literature has several definitions for digital transformation as highlighted by Kraus (2021). This notion of complexity is also evident from the answers of the HR professionals interviewed, as there were slightly differing viewpoints on HR digital transformation's purpose and what actions were associated with it. From the thematic analysis, two clear views were highlighted. One considering HR digital transformation as an action leading to data-driven decision-making and the other regarding it as a comprehensive change in HR operations.

The majority of answers on the concept of HR digital transformation circled around the theme of data-driven decision-making and how organizations can utilize digital technologies to gather and improve data on the employees for decision-making. Respondents 3 and 4 commented similarly that HR digital transformation was the process of transforming and organizing data about employees to know more about the current situation and predict the future with relevant insights. In addition, comments about the use of HR analytics, data tools and integrations of several data sources supported the views that HR digital transformation revolves around understanding data and information about people and using it to develop operations and processes.

“I see it (HR digital transformation) as organizing data on the people to receive real, comprehensive and relevant information to support the business and give insights on the personnel.” (Respondent 3)

On the other hand, some answers took a more general view of defining HR digital transformation as an all-encompassing process of change in HR operations. For example, Respondent 2 said that HR digital transformation was *“a comprehensive change in the way HR operates”*. The answers considered HR digital transformation as utilizing digital technologies and digitalization in order to simplify processes and improve efficiency within HR work.

“It is simplifying processes, removing manual processes through automation, effectively combining different organizational elements.” (Respondent 5)

4.2 Prerequisites for HR digital transformation

When considering the prerequisites for HR digital transformation, the answers from the respondents built a comprehensive image of the necessities. Several different viewpoints were brought up as respondents considered their past experiences with digital transformation. The thematic analysis resulted in three key themes, competence, culture and resources.

Competence was brought up most often in answers through recognition that tools and technology itself is not capable of changing how people work but it requires competence and understanding for effective transformation. Respondent 1 highlighted technical knowledge, understanding of analytics and process development knowledge as key competency related features required from organizations and individuals working in HR. Other respondents brought up notions such as understanding the benefits of digital transformation and having understanding of all available systems and tools indicating that competencies related to strategic and critical thinking are also fundamentally necessary to understand the bigger picture of HR digital transformation rather than just executing it.

“There needs to be internal competence for digital tools.” (Respondent 2)

“...there must be capability for change management.” (Respondent 5)

The second most common theme was culture. This included the organization’s ambitions, acceptance and readiness to change as well as interests. Several respondents mentioned buy-in as a critical factor for HR digital transformation and said that there were slim chances for success if there wasn’t management team and CEO buy-in for the change process. Respondents also highlighted that everyone in the organization should be invested and ready for change as certain ambitions and ways of thinking would advance the transformation process.

“The whole management team and CEO need to be invested in the change.” (Respondent 3)

The requirement of resources was a common theme in answers and for the purpose of clarity, competence has been noted as a separate theme above even though it can be interpreted as a resource in some instances. More generic resources that were mentioned in the interviews were financial resources, as in the budget to make investments for both systems and tools, and for personnel as Respondent 2 mentions, *“need for dedicated role thinking about how to utilize technology is needed for best results”*. Respondents also referred to information as a resource and highlighted that organizations must have reliable and comprehensive data at hand on the current state of the organizations as they begin to build a project or processes around HR digital transformation. In terms of organizational growth, the respondents recognized that availability of resources was scarce and budgets for investments were typically very limited.

4.3 Key drivers for HR digital transformation

There can be several drivers for HR digital transformation, and they are always dependent on the organization itself. The answers from the interviews highlighted multiple viewpoints but certain themes emerged often from the answers. The most relevant themes based on the analysis of the answers were manual work, value creation and clarification.

Manual work was the most common theme in the answers as the majority of the respondents indicated that they saw the reduction of manual work and manual upkeep of data as the biggest driver for HR digital transformation. Respondents highlighted that manual work meant more human errors and longer periods of time taken to complete tasks which ultimately becomes unsustainable as organizations grow and the workload increases. The answers also suggested that time used for basic manual work could be redirected into other tasks that would bring more value to the company.

“Growth of the organization when the headcount rose to a level where manual upkeep of information became hard, at times impossible and very time-consuming.” (Respondent 4)

Value creation was recognized as an important driver for HR digital transformation as respondents indicated that automation and digitalization could enhance the ability of the HR function to create more value for businesses. For example, Respondent 2 said a key driver was the “*Realization that value is generated from other activities than routine*”, which suggests that HR professional could direct their efforts from routine tasks as part of digital transformation and use it for development actions or advanced HR analytics.

Lastly, an important theme that was recognized was clarity. Making sense of the organization through data was seen as a key driver because it meant more transparency and better decision-making. Respondent 3 saw the ability to “*rationalize and make sense of all the confusion so that conclusions can be drawn in order to make smarter investments, find out gaps and bring clarity to the chaos*” as a key driver for HR digital transformation in the context of their rapidly growing organization.

4.4 Ideal starting point for active HR digital transformation

It is evident from the answers of the respondents that determining an ideal starting point for active HR digital transformation is difficult as it is influenced by so many different variables. Respondent 3 highlighted that it is “*dependent on the speed of change and how the organization is changing*” when considering the ideal point during growth. From the answers, there were two common themes, complexity and headcount that were distinguishable and that summarize the ideas of the respondents.

The amount of personnel in terms of headcount was one factor that the HR professionals used to determine a starting point for HR digital transformation. Despite this common theme, no answers were the same nor indicated definite common ground as the numbers varied from, as soon as a company is started, all the way to, around 100 employees. The answers somewhat favored an early approach to HR digital transformation as they connected the increase in headcount to more complexity in a linear scale.

“Since the beginning, from basic ideology that data needs to be recorded on all activities.” (Respondent 2)

This theme of complexity was visible in several answers as the respondents considered variables such as possibility of international growth or just the scale of manual operations as more people joined the company with their unique issues. The increase in work was seen as challenging as for example Respondent 4 indicated by saying that *“the chance for errors grows with amount of people”*, which highlighted the fact that HR professionals preferred to start thinking about HR digital transformation at an early stage. Respondent 1 summarized this by saying that the starting point should be *“early enough to avoid problems in future”*.

4.5 Describing the process of digitalizing HR

The way the HR professionals defined the process of digitalizing HR in their current company brought insight into different approaches companies can take. Similarly to the previous topic of starting points, this section received varying answers from the respondents as they attempted to summarize their approaches. Thematic analysis concluded on three underlying themes or definitions which were most commonly used, and they were priority, systematic and agile-based approaches.

Priority as a theme was one of the most prevalent as some respondents indicated that they tend to focus their actions based on an assessment of priority and solving issues in that order. There was a general consensus that critical business needs were addressed first. Equally prevalent was a systematic approach as for example Respondent 3 indicated that their organization had a systematic approach with *“clear targets and planned process”*. Respondent 5 indicated a combination of the aforementioned themes as they said their organization was moving towards a systematic approach which *“enables us to choose and prioritize solutions”*.

Agility was another approach that was used to describe the digitalization process. Respondent 1 highlighted that their approach was agile because their current growth was too fast to be strategic and thinking too far into the future. Similarly, Respondent 2 noted

that their current approach was not future thinking but focused on their current needs and allowed them to make fast decisions.

4.6 HR digital transformation roadmap for growth

The key themes that emerged when discussing digital transformation roadmaps were data and systems, and what role they played in prioritizing certain actions over others. It was also evident from the answers of the respondents that companies take varying approaches to HR digital transformation due to business requirements, existing system architecture and prevalent ways of working. Despite this variance, it was possible to spot similarities and common thought models in the answers as companies implemented similar systems in similar orders.

Several HR professionals indicated that the first step of digital transformation is ensuring that the basics are handled first which they referred to as ensuring core HR data management and setting up a single source HR master system. Respondent 2 stated that their digital transformation journey began from the simple realizations that *“having people data in Excels was not convenient any longer”*. The importance of data storage was apparent from other respondents as well as it was repeatedly stated that accurate and usable data was the basis for building processes and taking other systems to use which gave basic data related actions priority. Interestingly, the comprehensive visualization and analytics of HR data was also mentioned several times, but it came later in the digital transformation process, and it was still a work in process or being planned in several organizations.

In the HR digital transformation roadmap, certain systems were given priority over others based on their functions and the specific process they contributed to. The respondents mentioned several HR-related systems as part of their digital transformation roadmaps such as a HR master system, recruitment system, timekeeping system, e-learning system, and various other portals for external service providers that were used to manage employee lifecycle issues. The combination of different systems was very similar between the organizations, yet individual variations were still observable.

The HR master system was determined as a key starting point for digital transformation as for example Respondent 3 described their action plan for digital transformation “*the HR master system came first and then we started implementing our integration roadmap, building around the master data system to all necessary systems*”. The role of the HR master system was seen by all respondents as imperative to growth as it served as the backbone for most HR operations and allowed integrations to other systems.

The second most important system for growth was determined to be a recruitment system or tool. In some case this tool was already a part of the HR master system, but where it existed separately, it was mentioned right after the HR master system. These recruitment systems were seen to help manage and support the recruitment process, making the process more efficient and easier for the HR professionals as the number of open positions increased during growth.

“We could start to measure processes such as recruitment better and it changed how things were done.” (Respondent 4)

In terms of growth, HR professionals also mentioned the importance of learning and development tools that enabled more efficient onboarding and competence development. Respondent 4 stated that “*our learning system allows for faster and standardized onboarding and competence development versus if we had organized traditional face to face trainings*”. Competence development was brought up as an important process that could be improved with digitalization as requirements for competencies and skill very high in growth companies.

In terms of other systems taken into use, their role for organizational growth was seen as somewhat small. For example, the decision to implement a payroll system was seen as rather obvious and natural due to legal requirements and was already in use from the start of the business. Similarly, tools for timekeeping were present in most of the companies, but the complexity and features of these systems varied. It is important to highlight that some respondents also noted that these systems were part of the continual development cycle and re-evaluated from time to time.

Continual development and re-assessment of systems was mentioned as part of several digital transformation roadmaps. HR professionals would evaluate the feasibility of current systems based on triggers such as changing HR processes or increases in work volume. A common reasoning for decisions to start evaluating other systems or looking at the market was the realization that some aspect of an important HR process could no longer be supported by the current system.

4.7 Benefits and challenges of HR digital transformation

The HR professionals were able to build a comprehensive set of benefits and challenges of HR digital transformation. After the thematic analysis, it was evident that the benefits revolved around the themes of value creation and data, whereas the challenges were most often related to resources, competence or change management. The respondents had very similar answers for both benefits and challenges throughout.

The theme of value creation was evident in almost all of the answers regarding benefits of HR digital transformation. HR professionals saw that digital transformation reduced the time of routine manual work for everyone in the organization and allowed for automation which in turn enabled everyone to spend more time on value-creating tasks. For example, Respondent 5 highlighted this notion by saying that “*we can focus our working time on what actually creates value for the business*”. On the other hand, data-related answers were common as well as respondents noted the increased amount of data and its richness that could be used to support the business in decision-making.

“I see it (HR digital transformation) saving time from basic admin tasks from our HR team that can be used for more strategically valuable tasks.” (Respondent 4)

“A clear benefit is the rich centralized data that is received in a totally different way” (Respondent 3)

Challenges of HR digital transformation revolved foremost around the theme of resources. The majority of respondents identified both time and money as key challenges

for transformation as HR teams were working with tightly limited budgets, teams were small and implementation projects were time consuming. Another theme that emerged from the answers was change management. This was seen as a critical phase of any transformation, but especially vital in HR digital transformation as the implemented systems or changes affected everyone. According to Respondent 4 for example the importance of change management becomes even more evident when multiple systems are taken into use or changed within a short period of time.

“Resources are limited especially in growth companies.” (Respondent 1)

Competence or the lack of it was seen as a realistic challenge by the HR professionals. Not only was it determined that HR professionals require certain skills for implementation or effective use of new systems, but the whole organization would be challenged through HR digital transformation. Respondent 2 noted that the process of HR digital transformation highlights that *“the current competence requirements (of HR professionals) are not related to encountering people, but you need to be digitally talented to succeed”*.

4.8 Successful HR digital transformation

When discussing the successes of HR digital transformation and the different roadmaps taken by companies, two key themes of HR processes and feedback were highlighted. The HR professionals also described their ways of measuring success and how they saw the transformation moving forward. However, it was evident from the answers that the companies that the respondents worked at were clearly at different stages in the digital transformation process as some respondents mentioned they had not done any proper evaluations yet.

Most of the HR professionals were able highlight key HR processes that were affected by the digital transformation and that benefitted from it most. Early employee lifecycle processes such as recruitment and onboarding were noted most prevalently and seen as being the biggest examples of success. For example, Respondents 4 stated that their

“recruitment tool upgrade was especially successful, and we received significant benefits, with direct and immediate positive impact to my own work”. The respondents mentioned that the number of errors were reduced, and the general feeling of accomplishment and improvement were clear signs of success in the process.

Another way that the HR professionals determined success in HR digital transformation and something that came up frequently in answers was the role of feedback. Not only did the feedback improve on the aforementioned HR processes, but some HR professional stated that they actively sought feedback from personnel through questionnaires to follow up on progress of digital transformation projects. This was specifically noted by Respondent 5 as they mentioned that they followed up with personnel after projects to make sure that they “had succeeded in the things that they wanted to in the first place” and that this was seen as beneficial and ensured success.

4.9 Lessons learned from HR digital transformation

The final section of the interviews concentrated on finding the lessons learned and the things the HR professionals would have done differently based on their experiences in HR digital transformation projects. Two key themes emerged from the thematic analysis, and they were planning and change management. Interestingly the majority of answers from the HR professionals were very similar in nature.

Planning and actions associated with it like setting up a criterion or reviewing capabilities were seen as areas that were lacking or that could be improved by the majority of the respondents. The HR professionals stated that based on their previous experiences, they would spend more time in the planning phase and determine more detailed criteria for systems and tools before moving on with making decisions. Respondent 4 highlighted that *“there should be more focus on ensuring that everyone can use the new system, not just HR”*, because ultimately these HR digital transformation projects affect everyone in the company.

Change management was raised as an important concept several times when discussing areas to improve. Engaging personnel, communicating with them and different

stakeholders and ensuring smooth transitions were identified as specific actions to pay close attention to based on previous experiences. The HR professionals also noted experiences in lack of user-oriented change management and ensuring that there was a clear strategy in the change process which they saw as failures, and which had prompted development actions into further projects.

“Increasing communication is one thing related to change management which can always surely be developed and that is requested from everywhere.” (Respondent 5)

5 Discussion and conclusion

Supporting organizational performance such as growth through the digital transformation of the HR function is a vital step for growing companies. The strategies implemented and paths taken vary by companies and industries, but there are significant benefits to ensuring that digitalization and digital transformation are on the top agenda of the organization as they expand their size and operations. However, companies must be prepared to face the challenges of digital transformation and ensure the right capabilities before embarking on the journey to create sustainable value-add.

The main research question of this thesis was to uncover how organizations can support growth with HR digital transformation. Based on the literature review and the answers from the primary research, it is evident that successful HR digital transformation enables HR professionals to direct their resources into more strategic tasks and focus on creating value for the organization (Fedorova et al., 2019; Halid et al., 2020). Digital transformation in HR also supports and enables more comprehensive actions and data-based decision making in all internal matters as managers and leaders are equipped with accurate data (DiRomualdo et al., 2018). These insights allow decisions to be made based on facts and create capabilities for forecasting and other predictive analytics (Zehir et al., 2020).

Supporting organizational growth through digitalization starts early and when examining the research conducted in this thesis, it became evident that HR digital transformation revolves around data and the ability to manage and use it to support growth. HRIS are the obvious starting point to any organization as they allow organizations to manage employee data and analyze it. Having a dedicated HRIS enables comprehensive and effective human resource management, automated workflows, self-service applications and reduces the risk for errors in administrative operations building efficient and effective operations required for growth (Sotnikova et al., 2020; Varadaraj & Al Wadi, 2012).

Once the core data management is in place and digitalized, organizations may consider investing in other systems that support their objectives. The second most beneficial tool and growth-enabling system that was noted within the research of this thesis was a

recruitment system that enables efficient applicant management and process standardization which were implied to develop positive employer image and reduce manual labor for HR professionals and recruiting managers. The importance of digitalizing recruitment processes is also noted in management literature (Baykal, 2020; Vardalier, 2020).

Following recruitment systems, the HR professionals brought up learning tools, such as learning management systems which helped support key HR processes of competence development and onboarding. Especially in high growth organizations, learning management systems were seen as vital to provide standardized trainings and allow faster time to productivity for new employees. The notions of the HR professionals have also been highlighted in recent management literature (Sotnikova et al., 2020; Bannikov & Abzeldinova, 2020).

Successful digital transformation is strategic (Nachit & Okar, 2020). Selecting a system vendor, developing internal capabilities, gathering data or any other action associated with digital transformation within an organization should be done with one clear goal in mind, the company's own strategic objectives (Barber, 2004). As highlighted in the literature research and through the respondents in this thesis, the strategic approach to digital transformation allows companies to prioritize their efforts and reach long-lasting benefits such as growth (Baykal, 2020; Jani et al., 2021). Even though most of the respondents noted that a strategic approach was not implemented currently, it was their aim to move towards this approach or they noted that it would be more beneficial for growth.

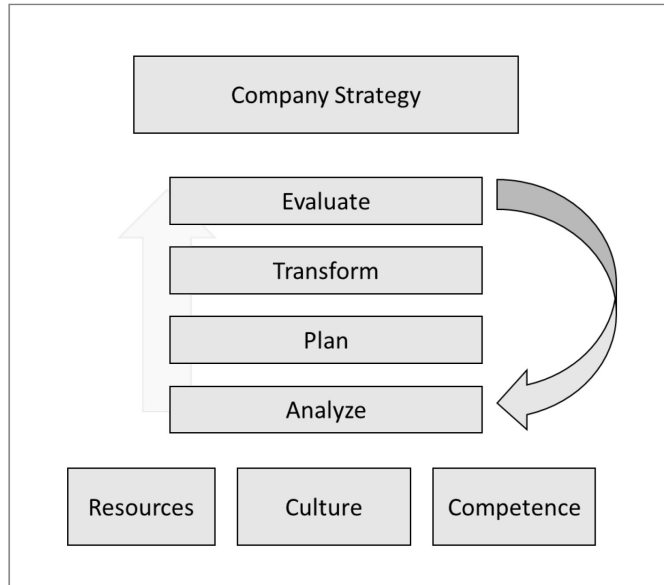


Figure 7. Successful HR Digital Transformation

Figure 7 highlights the process of successful digital transformation in HR and a singular digital transformation project based on the responses gathered in this thesis research. The digital transformation process is an ongoing change process but when actively engaged it can be depicted through dedicated actions and linear sequential phases. As noted in the research, the digital transformation process for HR may begin at different stages as noted in the research, no clear threshold is available, but organizations should begin to consider active digital transformation of HR at very early stages.

Before analyzing the current state of HR digitalization, organizations must have certain prerequisites in place. Drawing in from relevant literature and the responses made in this thesis research the most important prerequisites are certain resources such as time or money as well as competencies required for digitalization and a supportive organizational culture that enables the change and new ways of operating (Jin, 2021; Nachit & Okar, 2020). Smaller organizations will struggle with the availability of resources and competencies, which highlights the need for careful execution and understanding in the first phases of the digital transformation process (Matt et al., 2015).

The absence of the aforementioned prerequisites will create issues and challenges moving through the digital transformation process and hinder the organization's abilities to take full advantage of the change. Once organizations have established the prerequisites or

determined them to be at an adequate level, a base line analysis is required to understand the current state of digitalization and areas of improvement with regard to the organization's strategic objectives (Dorkenoo et al., 2016; Jin, 2021). Prioritization, as mentioned before, is a key focus of this stage as organizations will have to make crucial decisions on where to invest and how best support their growth.

Once an organization has identified its key development areas and decides to act on the transformation process, it must comprehensively plan its decisions and actions. The research in this thesis highlighted the need for in-depth planning of resource allocation, criteria matrixes and project execution as several respondents recognized that shortcomings in this phase could seriously hinder the success of the transformation process. Organizations should have a clear image of the issues they are attempting to solve, the outcomes of the transformation at an organization-wide level and the ways that they will measure success of the process (Dorkenoo et al., 2016; Nachit and Okar, 2020).

Clear and comprehensive planning and the existence of the prerequisites mentioned before supports the transformation stage as organizations make decisions and start for example implementing new systems to support growth. The role of HR professionals in driving this transformation is crucial as noted by Ulrich et al. (2013) in his model for HR competencies (Figure 2.). When looking at the common pitfalls, managing change was a clear challenge noted by HR professionals and academics alike as HR digitalization affects entire organizations, not just the HR professionals (Vardalier, 2020). Managing the needs and expectations of the entire staff and leadership are key in ensuring that new systems and processes are accepted and adapted to successfully (Mosca, 2020).

The final stage of successful HR digital transformation is evaluating the progress of the change and learning from the experiences. Receiving constant feedback during the transformation process is beneficial and being able to use that data and insights afterwards help develop future projects and ensure their success. Being able to evaluate the returns on investments and concrete benefits of HR digital transformation also build up the business case for further investments and ensure management buy in for the future.

In conclusion, it was evident from the research conducted in this thesis and the support provided by recent management literature that HR digital transformation supports companies in achieving business outcomes such as growth. The efficient and purposeful use of technology alters HR processes to provide increased productivity and data driven decision-making at a company-wide level. HR professionals themselves are more likely to commit their efforts in value adding and strategic actions as transactional administrative duties are automated, further highlighting the significance of HR digital transformation on business outcomes. In terms of specific HR digital transformation roadmaps, this thesis provided model for HR digital transformation based on views and experiences of HR professionals working in medium-sized Finnish companies experiencing growth. The model highlights a strong interlocked purpose with digital transformation and an organization's strategic objectives as well as the necessary prerequisites and establishes a linear action plan to follow for HR digital transformation.

6 Future research

This thesis was motivated by the lack of evidence-based research into HR digital transformation strategies, and it was recognized during the primary research that there is a substantial need for more. HR professionals noted a need for support and clarity regarding the implementation strategies, governance models and concrete insights on technology choices as high growth created complexity and pressure in decision making. Looking at the role of specific areas of digitalization in HR was also recognized as another interesting area of research. The role of AI and ML in digital HR solutions and how they support growth e.g. through advanced people analytics is another area that HR professionals found intriguing and important for future considerations. In relation to the findings of this thesis research, it is also important to consider the current state of HR education and teaching and how it prepares young professionals to a more digital future in HR with more advanced competency requirements.

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8 Appendices

8.1 Appendix 1. Interview Schedule

Context

What is your current professional title?

How many years of experience in HR do you have?

How would you define HR digital transformation?

What do you see is the purpose of HR digital transformation?

Strategical implications

What are the key drivers for HR digital transformation at your organization?

How is decision-making structured with issues concerning HR digital transformation?

What do you see is necessary to exist for HR Digital transformation to happen?

Roadmap for digital transformation

What would be the ideal starting point to digitalize HR if focus was on growth?

How would you define the process of digitalizing HR in your organization?

Could you describe the HR digital transformation roadmap in your organization?

What technologies were implemented? Important for organizational growth?

What were the biggest benefits and challenges in HR Digital transformation?

If you could have done something differently in HR digital transformation, what would it be?