



Competence development from an institutional perspective in the light of Industry 4.0

A qualitative study in the industry sector

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Purpose: The purpose of this study is to explore how external pressures such as industry 4.0 and the increased demands for digitalised practices this brings, has affected the investment in competence development at organisation X and how this is perceived by the managers. Neo-institutional theory is used to explain the relationship between the organization and external demands from society, such as industry 4.0 and how the attitudes of different actors can be explained based on institutional work.

Theory: This study is based on a neo-institutional theory with nuanced perspectives as institutional work.

Method: The research method is based on a qualitative approach with primary data from 19 semi-structured interviews. The target group was managers from different managerial levels.

Result: Investing in competence development can be interpreted as a way for organisations to become legitimised by adapting to industry 4.0 and digitalisation. Given the difficulties encountered by the company in terms of employee commitment, the investment can be interpreted as a way of externally maintaining a façade that adapts to society's expectations but internally it has been demonstrably more difficult to meet those requirements in view of the resistance the employees have shown. The study further describes what challenges the organisation has met linked to institutional work, in terms of creation, maintenance, and disruption of institutions.

Foreword

First, I would like to thank all interviewees for their participation and engagement. It gave me valuable insights into the field of competence development and this thesis would not have been possible without your help. Moreover, I would like to thank the people from the HR department at organisation X who supported and helped me to get access to information and documents that were necessary to be able to conduct this study.

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1. Introduction

This chapter describes the background to competence development and what it means for businesses and the employees. This is followed by a description of what competence development looks like at the company in question for the study and a connection between competence development and neo-institutional theory. Finally, the rationale, the purpose, and the two research questions are being presented.

1.1 Background

Society is changing rapidly, and global forces such as Industry 4.0 are forcing businesses to keep pace with the challenges this brings. Industry 4.0 is, in simple terms, the digitalisation of various practices, evolving around three main categories: digitalisation, automation and human capital empowerment (Plawgo, 2021). All three categories affect organisation X studied here but will mainly focus on digitalisation and human capital empowerment since the purpose of the study is to investigate how the investment in competence development can be explained by industry 4.0 and digitalisation. Digitalisation affects several areas of businesses but for the employees' work-life, and it has been shown to increase the quality of work, as it in many cases requires more advanced skills, such as analytical or critical thinking, leading to higher wages and personal development (Rolandsson et al. 2020). In terms of workforce empowerment, it can be done through competence development with informal or formal training and should be offered daily with different content depending on the aim (Plawgo, 2021). Research shows that low-skilled workers will become less attractive in the future as Industry 4.0 requires more advanced skills which is why training is necessary to retain those who do not have post-secondary education (Rolandsson et al. 2020). Therefore, competence development is an important part when it comes to attracting talents and retaining current employees.

Previous research has suggested that competence development can be equated with lifelong learning, meaning that it is an ongoing process that takes place throughout a person's career, in both informal and formal ways. From a historical perspective, it is not clear when competence development was first introduced, as training has occurred throughout history, even if it has not been called competence development. The general definition of competence

development is described as organisations' actions to improve individual development and skills (Forrier & Sels, 2003). On this basis, competence development can be considered an important factor in organisational growth and employability. When implementing competence development, it is important to discuss the factors that might stand in the way of assessment (Wallo et al. 2020), what conditions need to be in place to enable learning (Lundkvist & Gustavsson, 2018) and how training is transferred between different types of people (Ford et al. 2018). When implementing competence development, managers should keep in mind that learning is time-consuming and is facilitated by making employees feel seen and supported. On this basis, it is obvious that competence development does not automatically lead to success, but requires the right circumstances (Brandt & Christensen, 2018). In collective agreements, competence development is prescribed to be a natural part of organisations, regardless of the sector, and focus on how the employee should have the opportunity to develop existing or new skills to perform their role to the best of their ability. In this context, the employer should conduct an annual performance appraisal in which the closest supervisor provides a framework for the requirements of the position. However, it is not a mandatory law that companies must introduce competence development, even though many do (Unionen, 2022).

This chapter begins with introducing the background of why organisation X had decided to invest in competence development followed by describing the relationship between competence development and neo-institutional theory. Finally, the rationale of the case study is presented followed by the purpose and research questions.

1.2 Competence development at organisation X

The basis for competence development at company X is determined based on the ISO standard 9001:2015 for competence development, which includes deciding which competencies are required for a position, offering formal training or experience, and documenting the necessary information. As put by the managers, competence development has always been an important part of the company, but in the past, it was not given as much attention as it is today (Internal documents, 2022). Since the fall of 2021, the management team decided to invest in competence development further and tasked the HR department to implement and present digital tools for competence development for managers initially who thereafter presented it for their employees. The digital tools are both used for the training

itself and for measuring and documenting conducted training or courses. The company will be audited for these initiatives in the end of May 2022. Important to mention is that the company itself do not portray the investment in digitalisation as part of industry 4.0 even if research strongly indicates that digitalisation is part of industry 4.0.

As mentioned above, competence development is constant, consciously, or unconsciously, both through experience, relationships, formal and informal training, but since the autumn of 2021, the company has opted for new investment, introducing digital solutions. The initiative aims to create a high-performance culture that addresses the understanding of the purpose of competence development, gives the right conditions to contribute and succeed in their role, offers the right competencies and behaviours, and improves performance as an individual and as part of a team. Competence development at company X is measured through four main areas: Know-how, Experience, Behaviour and Leadership. The process consists of five steps: external requirements, internal requirements, analysis, implementation, and follow-up. Organisation X describes competence development using the 70:20:10 model, where 70% of learning comes from experience, 20% from relationships and 10% from formal training (Internal documents, 2022).

1.3 Competence development and neo-institutional theory

Neo-institutional theory can be described as the norms and routines within an institutional setting, followed by a normative explanation for what is taken for granted, that sets the standard for organisations to adopt. Organisations adopt these as rationalised myths to reach legitimacy which is key for long-term survival (Eriksson-Zetterquist, 2009). Norms and practices can be referred to as the requirements of what a position should constitute which raises employee expectations for competence development through formal or digital training if they lack any competence the role is supposed to offer (Pauuwe & Boselie, 2005).

However, institutionalised rules such as norms and practices in the external environment are being adopted if it is believed as beneficial for the business needs (Eriksson-Zetterquist, 2009). However, it is two-sided, organisations influence the external environment, and organisations are influenced by it (Eriksson-Zetterquist, 2009). Moreover, the design and content of competence development can be affected by external pressures called institutional drivers (Farndale & Pauuwe, 2007). These are categories as follows: 1) external and competitive pressures such as best practises 2) institutional pressures such as legislation, and

3) internal pressures such as structure and culture. The adoption of these factors varies from organisation to organisation and leads to differences between companies within their institutional environment. Regardless of what drives companies to invest in competence development, the quest for legitimacy remains (Farndale & Pauwwe, 2007).

1.4 Rationale of the study

Previous research has focused on functionalist aspects of competence development, mainly describing the benefits of offering it, but with few empirical examples. To cover the gap, this study is needed which presents empirical material that can guide the company itself and other companies that will implement similar initiatives in the future. The neo-institutional theory will add a new angle to the study and will focus on how institutions, such as competence development, might be affected by external pressures such as Industry 4.0 and digitalisation to become legitimised (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). Moreover, nuanced perspectives on neo-institutional theory such as institutional work (Lawrence et al., 2009; Lawrence et. al., 2011) will explain how actors within an institutional setting handle practices such as competence development that are being challenged by changes in the external environment.

1.5 Purpose and research questions

The purpose of this study is to explore how external pressures such as industry 4.0 and the increased demands for digitalised practices this brings, has affected the investment in competence development at organisation X and how this is perceived by the managers. Neo-institutional theory is used to explain the relationship between the organization and external demands from society, such as industry 4.0 and how the attitudes of different actors can be explained based on institutional work. The investment in competence development is primarily anchored with the managers at company X, which is why they were chosen as interviewees for this study. Thus, the results and analysis will provide valuable insights into competence development that will guide the stakeholders and organisations in planning to invest in similar projects. The following research questions will be answered in this case study:

Research questions

- What are the managers' receiving of the investment in competence development as part of external requirements for digitalisation?
- How can the investment in competence development be interpreted based on neo-institutional theory?

The disposition of the study begins with previous research, followed by a theoretical framework that includes neo-institutional theory. The methodology is then presented, followed by the empirical results and discussion. The study ends with a conclusion and a bibliography.

2. Previous research

This chapter offers an introduction to competence development, neo-institutional theory, and industry 4.0. To begin with, a brief explanation of what competence and competence development is, followed by explaining what industry 4.0 is in relation to institutional terms. At last, a presentation about industry 4.0 and how it has affected the organisation in various ways.

2.1 What is competence?

A competent person has one or more competencies, which in academic parlance is synonymous with knowledge or skills in a particular area. In previous research, a competent person is often described as someone who can achieve good results and thus contribute to the company's goals. In the context of Industry 4.0 and the increased demands for digitalisation and technology, another form of competence can be e-competence, which enables the worker to adapt to digitalisation. E-competence is about learning how to work in Industry 4.0, rather than the opposite, adapting current work practices to new requirements (Rangraz, 2021).

2.2 Competence development

Research by Jonsson and Scholin (2016) shows that the purpose behind offering competence development has not changed significantly over the years. It is explained as a strategy where the goal is to increase employees' skills and improve e.g., self-esteem and self-confidence. Despite individual developments, offering competence development leads to an organisational culture that symbolises trust and a sense of coherence (Jonsson & Scholin, 2016).

Competence development is an ongoing process throughout the career (De Vos et al. 2015) and should include general or specific training in areas such as social skills or professional flexibility (Gibbons-Wood & Lange, 2000). Specific training is often linked to a particular role, while general training applies to everyone (De Vos et al. 2011). Regnér (2002) further argues that workers who receive specific training tend to stay employed in the same organisation longer than workers who receive general training. However, successful competence development requires the worker's engagement, and a mix of general and specific training, such as formal and informal training through experience or relationships is beneficial to the individual's self-perceived employability (De Vos et al, 2015). Another key factor for successful competence development is the management behind it, as research shows that employees who experience a clear framework and support lead to higher motivation and thus

a better working atmosphere (Srikanth & Jomon, 2020). Competence development can be used as a tool to create change and increase the competitiveness of organisations. Through training and facilities for all stakeholders involved, continuous developments are made to achieve the desired goals of an organisation (Dalimunthe, 2019). Jonsson & Scholin (2016) studied an example from a Swedish company in the industrial sector where competence development was a strategy to create change and steer the company in a new direction after a period of financial difficulties. In addition, a study in elderly care in Sweden found that the outcome of competence development depended on the goals and whether they were achievable with the available resources. The result showed that training became counterproductive when it required more effort in terms of workload than the staff believed it was worth (Hauer et al. 2017).

Competence development takes different forms, and previous research distinguishes between formal and informal training, with formal training occurring through classroom- or digital training and informal learning occurring through experience or interpersonal relationships. Research shows that 70-80% of individual development occurs through informal training such as experience and relationships and only 10% through formal learning such as digital or traditional classroom training. However, both formal and informal training are equally important to an individual's learning (Johnson et al. 2018). Berlin et al. (2010) mean that successful competence development requires more than just formal training through digital or classroom events. A combination of digital and physical lectures, seminars, discussions, and reflections stimulates participants to a higher degree and exploits people's different learning abilities. The results of combining methods lead to increased self-confidence, which in turn also improves the quality of work. However, the authors stressed the importance of providing regular training to achieve positive results (Berlin et al. 2010). In summary, during a career life, both informal and formal learning is ongoing and offering competence development is necessary for the employee to be able to utilize their knowledge to the best and in the future continue to be an asset for companies (Rahner & Schoenstein, 2018).

2.3 Industry 4.0 as an institutional setting

In 2011, German governments, private companies and universities coined the term Industry 4.0, which is defined as the fourth paradigm shift with an increased focus on the digitalisation of services and processes, artificial intelligence, and innovative solutions to improve

efficiency. Industry 4.0 changes the value chain in organisations and enables smarter business where employees can work more flexibly and intelligently (Frank et al. 2019; Verma & Verma, 2020). Traditional work methods will be challenged by digitalisation and modern technologies, leading to higher demands on human skills (James et al. 2022). It impacts various business practices such as talent acquisition, retention, competence development, employee awareness, employee trust, behaviours, and social skills. However, the focus of this study will be to explore industry 4.0's impact on the business practice competence development.

2.4 Competence development as part of industry 4.0

Industry 4.0 have been claimed to put higher demands on digital and efficient processes and thus higher demands on employees to train skills adapted to these requirements (Shevyakova, 2021). Formal and informal training has been part of business strategies for many years, but the paradigm shift has changed the requirements for what type of training should be offered, as machines could fill the gap in the future if the employee cannot uphold the same cognitive ability (Franceschi, 2018). Kravcik (2018) suggests that the required competencies in Industry 4.0 are related to four different areas: professionalism, IT competencies, personal, and social skills. Within these areas, it is important to train competencies such as problem-solving, creativity, conflict management, and analytical thinking even if few studies address the question of how to improve these skills (Franceschi, 2018). Training within the aforementioned areas includes leadership- and communication skills, self-awareness, self-direction, and self-regulation. Employees should also be trained in entrepreneurial- and creative thinking, conflict resolution, and decision-making¹. By investing and offering competence development in those mentioned areas, the employees adapt more easily to Industry 4.0 and the associated demands on skills (Hernandez-de-Menendez, 2020). According to previous studies, organisational adaptation to Industry 4.0 can be compared to the notion of organisational resilience, which refers to the ability of organisations to adapt to the increased demands for digitised and technological competencies that the paradigm shift brings (Bustinza, 2019). Earlier research describes that one way of adapting to industry 4.0 is to introduce “*New ways of working*” called e-learning, synonymous with digital training as a common method to introduce digitalisation (Andersson et al. 2010). Digital training offers competence

¹ Industry 4.0 places demands on different areas within digitization and technology, but the focus in this study will be on digital tools for conducting competence development

development through digital programmes instead or as well as traditional classroom training. Hinings et al. (2018) state that organisations that adopt digital innovations symbolise an organisation ready to change. Thus, offering new learning tools does not mean that the existing ones die out, they coexist. However, there are no results on whether digital training is more efficient than traditional classroom training (Derouin et al., 2005). Although history has not changed the purpose of implementing competence development, society, such as industry 4.0 and digitalisation, places increased demands on practices such as competence development.

2.5 Summary

In summary, previous studies emphasise the positive aspects of competence development from a functionalist approach such as the positive impact on the employees and the organisation. Since few studies present empirical data on the implementation of competence development in the context of Industry 4.0, it is useful to explore the area and whether the purpose of investing in competence development can be explained from neo-institutional theory.

3. Theoretical framework

Previous research has focused on describing competence development from a functionalistic context, not focusing on the impact of the institutional setting which is why this study addresses neo-institutionalism as a theoretical framework, originally by Meyer & Rowan (1977). Nuanced perspectives of neo-institutionalism as institutional work by Lawrence & Suddaby (2006) will be addressed as well. The chapter ends with theoretical implications for this case study.

3.1 Neo-institutionalism

Traditional institutionalism traces its origins to sociological and economic theories from the 1800s, which more than a decade later became neo-institutionalism first introduced by Meyer & Rowan (1977). Meyer & Rowan (1977) describe neo-institutionalism as the effect that organisations are dependent on the institutionalised setting in which they operate and in which practices are defined by society. Organisations in turn influence the environment, and organisations are influenced by it (Eriksson-Zetterquist, 2017). Organisations adopt institutionalised rules in the external environment such as policies and services that they consider beneficial as economic actors (Eriksson-Zetterquist, 2009), which become rationalised myths. By adopting these as rituals, organisations become legitimised. Rationalised myths emerge from a network of shared opinions and beliefs to which organisations respond. In this way, organisations within a given sector become similar rather than different as they adopt similar practises and services (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). However, neo-institutionalism should not be seen as a traditional theory, but rather as a framework that has been historically influenced and is influenced by its environment (Eriksson-Zetterquist, 2009).

Survival in an institutional setting depends in part on the ability of organisations to legitimise themselves through economic or social adaptation. In these institutional settings, there are mechanisms defined as isomorphism that explain how organisations imitate rationalised myths about what is expected of an organisation in a particular domain (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). Neo-institutionalism has been further developed since the 1990s by several authors such as Greenwood and Hinings (1996), who focused on how organisational change can be understood from an institutional perspective and institutional

entrepreneurship, describing how the actions of actors are determined by the institution (Maguire et al. 2004).

A general criticism of neo-institutionalism concerns that the concept of institutions has been overused and it has become difficult to define what an institution is since everything seems to be an institution. A solution could be a description of what an institution is not, instead of what it is (Alvesson & Spicer, 2019). Other criticism of neo-institutional theory concerns the cross-cultural perspective and how practices work differently in different countries. A cross-cultural perspective often implies local interpretations of normative and cognitive behaviour, leading to different understandings of institutions (Tempel & Walgenbach, 2007).

Meyer & Rowan's (1977) work discusses the struggle of organisations to maintain ceremonial conformity in terms of rationalised myths, through decoupling, i.e., the creation of gaps between the formal structure and everyday practices. Before the work of Meyer & Rowan (1977), Glassman (1973), March & Olsen (1976), and Weick (1976) discuss similar ideas about how organisations are decoupled. They describe how organisations are divided between a formal and informal structure. The formal structure consists of departments, strategies, and goals, but at the same time can be institutionalised through rationalised myths such as social prestige and laws. Decoupling describes how a discrepancy arises between organisational practices and organisational structure, with practices being decided in the pursuit of effectiveness and structure. Organisations deal with this inconsistency by decoupling. That is, organisations struggle with adopting rationalised myths that are inconsistent with the internal structure of the organisation. To solve the problem, organisations decouple internal inconsistent practices with the rationalised myths from the formal structure and use rationalised myths externally, even though their practices may not be used informally (Meyer & Rowan, 1977). Decoupling enables long-term survival because organisations can continue to use established practices while the formal structure adapts to the changing demands of the external environment (Eriksson-Zetterquist, 2009).

3.2 Institutional work

Lawrence & Suddaby (2006) presented institutional work in contrast to the traditional neo-institutional theory which focuses on the impact actors have on institutions and what defines actors could be individuals, groups, and organisations (Lawrence & Suddaby, 2006). These

actors are described as entrepreneurs who have a major impact on the strategic functions of organisations. Central to institutional work is the creation, survival and destruction of institutions which is determined by actors' attitudes towards institutions. The acting of actors can be explained by technological, social, or financial constraints, but is not certainly conscious or unconscious. Following Lawrence et al. (2009), institutional work is explained as follows: 1) initiative and skilled actors, 2) the creation, survival and disruption of institutions depends on actors, and 3) individuals act according to institutionalised rules. As mentioned before, Lawrence & Suddaby (2006) place particular emphasis on the second point, the creation, survival and disruption of institutions, and the next sub-chapter will therefore discuss this further.

3.2.1 Institutional work – Creation, maintenance, and disruption of institutions

The creation, maintenance and disruption of institutions are defined by Lawrence et al. (2009) as a life cycle. *The creation of institutions* has its background in ten different practices with three main categories. The first main category focuses on political work and is defined by the practices; *vesting, defining, and advocacy*. *Vesting* refers to governmental agencies, *defining* is about memberships and status hierarchies, and *advocacy* is defined as political and regulatory support. The second category relates to actors' belief systems whereas *constructing identities, changing normative associations, and constructing normative networks* are practices within. *Constructing identities* is related to the construction of professions. *Changing normative associations* is explained as a reformulation of norms that might lead to actors questioning pre-existing institutions. The last one, *constructing normative networks*, is described as the change of normative assumptions (Lawrence et al., 2009). The last broad category is about meaning systems where *mimicry, theorising, and educating* are within the field. *Mimicry* occurs when actors create new institutions through practices such as technology and rules that seem understandable to the actors involved. *Theorising* is about making new concepts part of the business plan. The last one, *educating*, refers to educating actors in the field so they understand the purpose and aims (Lawrence et al., 2009). The three final categories focus on cognitive aspects and are necessary for the creation of institutions where actors' understanding and interaction with new structures are inevitable for succeeding in implementing new institutions (Lawrence et al., 2009; Lawrence et. al., 2011)

The second phase, *maintenance of institutions*, describes institutions as dependent on actors

and their role in preserving institutions by engaging with different areas of institutional work. Lawrence et al. (2009) presents six forms of institutional labour that facilitate institutional survival: enabling, policing, deterrence, valorisation and demonisation, mythologisation, and embedding and routinisation (Lawrence et al., 2009). The first three forms of survival of institutional labour, enabling, policing and deterrence, focus on the rules and procedures that make up institutions. Established rules can act as coercion, i.e., be a way to control actors in a particular field. The last three forms of institutional work describe valorisation and demonisation as a way of identifying the relationship between actors and moral issues. Mythologising is about preserving the past and highlighting what the company stands for. The sixth form is about embedding and routinising, which emphasises the importance of maintaining established routines such as competence development and recruitment that are well preserved. However, the authors highlight that institutional work is not self-perpetuating but requires the engagement of all actors, including new actors who unconsciously transform organisations. In addition to new actors entering organisations, there are also external threats such as new technologies and demands from society that can easily steer organisations in a different direction (Lawrence et al., 2009).

The final stage, the disruption of institutions, involves routines being challenged by actors who do not adhere to established principles. As with the creation and maintenance of institutions, there are three different forms of disruption of institutions: The disruption of sanctions, the suspension of moral foundations and the undermining of assumptions and beliefs. The disruption of sanctions in institutional work occurs when state or non-state actors decide to stop providing operational support that is essential for its survival. Disruption of institutional work in terms of decoupling moral foundations illustrates how practices become disconnected from their moral connection. When institutional work aims to undermine assumptions and beliefs, Lawrence et al. (2009) speaks of actors trying to weaken the position of institutions by disregarding already established principles and presenting new innovations.

Later work of institutional work presents the vision of agency where actors are neither trapped by institutional settings nor as muscular institutional entrepreneurs. Actors can influence institutions, motivated by personal interest, through change or for the maintenance of institutions (Lawrence & Suddaby, 2009; Lawrence & Suddaby, 2011). The creation, maintenance, and disruption of institutions are not equal to creating, maintaining, and

disrupting of institutions. The institutional process is not linear and institutional work is more about activities than accomplishments, it might fail or succeed (Lawrence & Suddaby, 2011).

Figure 1.1 shows the interplay between agency and institutions where actions affect institutions at the same time as actors are dependent on institutional constraints (Voronov & Yorks, 2015; Zietsma & Toubiana, 2018).

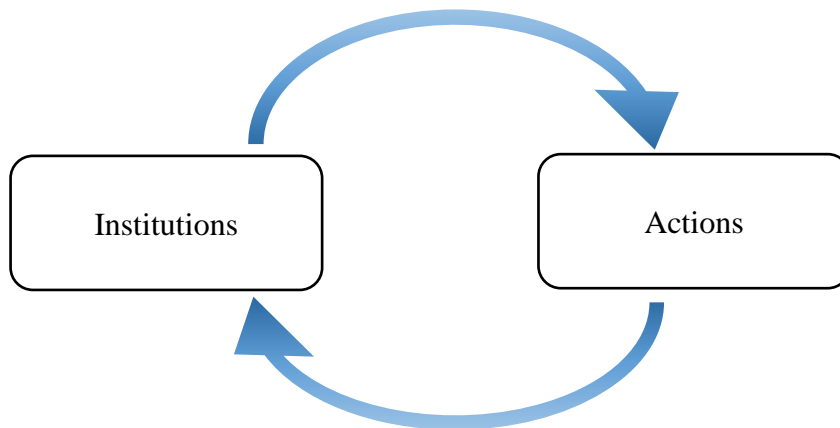


Figure 1.1 Inspired from “The relationship between how actors influence and are influenced by institutions” (Voronov & Yorks, 2015; Zietsma & Toubiana, 2018).

As a complement to the framework of Lawrence & Suddaby (2009), Cloutier et al. (2015) suggested four forms of managerial institutional work that should be considered during the reform of institutional work. These four areas are *Structural work*, *Conceptual work*, *Operational work*, and *Relational work*. Structural work refers to managerial efforts to implement new rules and principles, conceptual work aims to implement new norms and beliefs that fit the established ones, operational work refers to implementing actions that affect day-to-day practices, and relational work that underpins trust and collaboration between the people involved (Cloutier et al., 2015).

Previous research on institutional work offers another perspective on the traditional definition by Lawrence & Suddaby (2006) who focused on the purposive actions by actors who either tries to create, maintain, or disrupt institutions while earlier research focuses on how actions of actors can be purposive or non-purposive, and which effect is has, indirect or direct effect (Beunen & Patterson, 2019). During institutional change can strategies be unintentional or for interest of various actors that affects stability and institutional change (Beunen & Patterson, 2019).

3.2.2 Institutional work and HRM practices

Concerning HRM practices, whose function has been neglected by traditional institutional theory, institutional work aims to explain the importance of HRM practices and why they need to be addressed to maintain the institutional structure (Lawrence et al. 2009) Daily routines and HRM practices such as competence development stabilise institutions and reproduce a common framework for employees. Competence development increases commitment, raises awareness and develops skills, thus maintaining institutional structures (Lam & Schaubroeck, 2000). Lawrence et al. (2009) emphasise that institutions do not sustain themselves but require great effort on the part of the staff. Institutions are not stable; changes or unexpected directions put pressure on actors who must deal with them to maintain routines and structures. External pressures can be related to new techniques, digitalisation, or legislation (Lawrence et al., 2009).

3.3 Theoretical implications for research

The theoretical framework will explain how the investment in competence development can be interpreted from neo-institutional theory by considering how external pressures such as industry 4.0 and digitalisation affects how practices such as competence development are being conducted. Individual development and retraining are central to the long-term survival of organisations, and competence development can be a way to enhance employees' learning and skills. Neo-institutionalism and its associated central concepts serve as a guide to understanding the goals of investing in competence development, as competence development can be interpreted as a practice to become legitimised by maintaining a certain level of expertise. External pressures as industry 4.0 and digitalisation are forcing companies within the industry sector to deal with this in some way, which can be explained by neo-institutional theory (Lawrence et al., 2009).

4. Method

The methodology is based on a qualitative method and this chapter involves the research design, setting, sampling, respondent selection, and data collection and analysis. At the end of the chapter, the research quality, limitations, and ethical considerations are discussed.

4.1 Research design

The research follows a qualitative approach using primary data from semi-structured interviews, internal documents, and official documents as a starting point. The original idea of the case study was to explore the interviewees in their natural environment and collect data face-to-face, but due to the Covid-19 pandemic, the interviews were conducted digitally through Teams. The disadvantage of digital interviews is that you as the interviewer cannot analyse the environment, body language or facial expressions as you can in real life.

However, the advantage of the qualitative method and interviews is that the focus is on the interviewees and their impressions of competence development. The background of the interviewees in terms of their position and work experience added value to the study and contributed to the nuances of the result. Unique to a qualitative method, the process is adaptable depending on what the semi-structured interviews contribute to the outcome. It happens that the interview questions are adjusted, or the direction is changed if you find that the answers do not rhyme with the expectations (Creswell, 2014).

4.2 Setting

This case study explores a global medium-sized company in the industrial sector. There are 16 branches worldwide and in 2022 it employed 2400 people. Since autumn 2021, the company has made a new investment in competence development, partly focusing on digital tools for formal training. One digital tool delivers the training itself, while the other is for profile registration, follow-up, and as a gap analysis tool. Managers can use the digital programme to register skills, training, work experience and education for themselves and their subordinates, resulting in different job profiles depending on the position. The skill level is determined based on the level of education, previous work experience and training in the company or with a previous employer. It is the responsibility of managers to decide what each employee needs in terms of training, education, work experience and other skills to be able to do their job in the best possible way. Based on this, managers decide what level each employee meets in percentage terms. The overall percentage may therefore indicate whether the employee

needs additional training in some form, and if he or she lacks skills, it is the responsibility of the department HR to provide training through the online programme (Official website, 2022).

4.3. Sampling

The sampling strategy was based on purposive sampling, where the selection of interviewees depended on their involvement in the implementation of the investment in competence development. In addition, a pre-selected criterion for sample size was established considering the time frame and available resources of the case study (Ritchie et al., 2014). The managers work at different levels and have different responsibilities. Approximately 100 managers in Sweden were contacted by email and first informed about the purpose of the study. Those who were interested in participating in the study contacted me by mail. Of the 100 managers, about 30 managers were interested in participating. Due to the scope and time frame of the study, 19 managers were selected.² To get a mix of interviewees, they were selected according to the department they worked in and the management level they held.

4.3.1 Respondent selection

As the company is dominated by men, it was difficult to book an equal proportion of men and women. Two of the interviewees are female and the rest are men, who could influence the result, but this aspect is not analysed further. The interviewees are between forty and sixty years old and have at least three years of work experience in the same company. The interviewees work in different departments such as finance, production, technology, digitalisation, marketing, and communication as well as in strategic positions. As described by Ritchie et al. (2014), several criteria need to be considered when selecting interviewees for a study. It is unusual to meet all the requirements and therefore I had to prioritise. In this case, I selected interviewees based on the criteria of the type of work area and management level. For reasons of confidentiality, no further information about the interviewees is given.

² The respondents will be defined as “interviewees” or “managers” through the whole thesis, and they often refer to the employees’ experiences of the investment in competence development instead of their own experiences

4.3.2 Data collection and data analysis

Data were collected through a qualitative method with data from semi-structured interviews. Nineteen semi-structured interviews were conducted with managers from different departments, using an interview guide as a starting point. The interview guide was developed considering previous research and the theoretical framework and was divided into different sections, starting with information about the interview, followed by background questions and then general questions about the purpose of competence development. The interviews ended with questions about competence development in the organisation. Semi-structured interviews allow follow-up questions outside the interview guide and this approach created a natural and reliable environment that allowed interviewees to deviate from the given questions. Data was collected and analysed using a grounded theory approach, linking the selection of interviewees to their same experiences of competence development. The interviews lasted 45 to 60 minutes each, including pre-and post-interview questions. Interviewees consented to be recorded and subsequently transcribed while maintaining their anonymity. They were also informed that the recordings would be kept confidential and deleted after transcription. Interviewees were also informed that they could stop the interview at any time if they wished, in line with Flick (2018) who emphasise the importance of respecting the respondent as a voluntary interviewee.

The data were analysed using an abductive approach, where the aim was to go back from new data to existing theories to compare and explain newly discovered patterns. While established theories were used as inspiration, new data challenged assumptions leading to a rethinking of ideas (Flick, 2018). The raw qualitative data were analysed using a thematic approach focusing on identifying main- and sub themes. Through first order coding it was possible to identify patterns and similarities between the interviewees' interpretations of the investment in digital tools for competence development. This led to main- and subthemes that could easily be tied to the theoretical framework during the analysis and conclusion (Ritchie et al., 2014). An abductive approach makes it possible to go back and forth between existing data and theories to then be able to determine what best follows the purpose of the study. With that said, the main themes for the empirical result have changed during the process to be adapted to the purpose, previous research, and theoretical framework of the study. Some of the following main- and subthemes were identified as linked to neo-institutional theory and industry 4.0 focusing on external pressures such as industry 4.0 and digitalisation: *Creation*

through disruption, External demands on digitalisation, Organisational identity, Legitimacy through investments, Maintaining institutional structure, Cultural attributes, and Reception of digitalised practices.

4.4 Research quality

The research quality in qualitative studies is often measured in terms of trustworthiness, where credibility, transferability, reliability, confirmability, and reflexivity are categories within. Credibility refers to whether the research has enough data in terms of the number and breadth of interviewees to show reliable results, and whether the analysis is related to the data (Charmaz, 2006). Transferability, or generalisation as some authors call it, can be described in terms of three different concepts: representative generalisation, inferential generalisation, and theoretical generalisation. By these three is theoretical generalisation most in line with this study and it examines whether the results contribute to established theories by setting norms or standards. Instead of the term reliability, the authors prefer the terms dependability or confirmability, which measure whether the results would be the same if another researcher used the same methods (Ritchie et al., 2014). The last term, reflexivity, describes the researcher's position in the research and how the researcher's interests and the position may affect the analysis and the outcome (Charmaz, 2006).

With these concepts in mind, the trustworthiness of this research can be considered relatively high. Given the time frame and the number of interviewees, it can be said that the credibility is high, even though a larger number of interviewees would be desirable. However, credibility would increase if triangulation of methods were used, such as a mixture of quantitative and qualitative methods or additional observations, but given the time involved this is more likely to be a recommendation for future research (Ritchie et al., 2014). It is problematic to say that the current study has a high degree of transferability or generalisability, as the study examines one case in a specific context and therefore the results cannot be used to explain the wider population. In terms of reliability and conformity, there is a high risk that my position as a researcher will influence the analysis, which means that another researcher conducting the same study would probably not come to the same conclusions. Consequently, it also answers the next questions that explore whether my interests as a researcher influence the results and the analysis. There could be a bias as I have done an internship in the same company and have been familiar with some of the staff since before. This means that reflexivity can be

questioned, but research indicates that for a case study to be trustworthy, it is sufficient if you as the researcher make any possible bias transparent to the readers (Ritchie et al., 2014).

4.5 Limitations of the research method

As described above on research quality, the study may be subject to bias due to my role as a researcher and possible personal experiences that inform the analysis (Creswell, 2014). Moreover, since I did my internship and wrote this thesis at the HR department there is a risk that the managers did not dare to express themselves freely about their experiences of HR because I am a part of it. Secondly, the research findings cannot be generalised due to the specific research context and credibility is compromised by the time frame which limits the number of interviews. Finally, a mix of quantitative and qualitative methods would be beneficial for future research to cover a broader group of workers and thus increase credibility (Creswell, 2014). The shortcomings of conducting interviews digitally include the impact of internet connectivity and the fact that it was sometimes difficult to hear or interpret certain words or statements. It was also difficult to interpret facial expressions and create a natural flow of conversation because it was not fully understood when the interviewee wanted to ask a question or interrupt.

4.6 Ethical considerations

Concerning ethical considerations, all managers working in Sweden were interviewed and informed about the purpose and conditions of participation in the study before deciding whether to participate. Managers who agreed with the conditions of the study sent an email about their willingness to participate. A short time later, they received a consent form by email with all relevant information, in time for the interview. The consent form addressed issues such as data access and ownership, confidentiality, and the purpose of the study (Ritchie et al., 2014). Once I had received all the consent forms with interviewees' signatures, I was able to start booking the interviews. During the interviews, interviewees were informed that they would be recorded and that the recording would then be transcribed. The transcripts were then deleted when they were no longer useful, of which the interviewees were informed. To preserve the anonymity of the interviewees, their names and position in the company are exchanged for "X". As the interviews were conducted in Swedish, they had to be translated during the transcription. From an ethical point of view, I felt that the translation should be as

close to reality as possible so that the interviewees did not feel that their answers had been changed.

5. Empirical findings

The empirical findings are presented with starting point from the thematic coding with main themes and sub-themes. The interviewees' experiences were linked to the company in general and HR is never mentioned as a significant player for their experiences, even though HR is responsible for the implementation of the new investment. Whether this is due to the managers being aware that I am in the HR department is difficult to say and will not be further analysed. Based on what the empirical findings showed, the following five main themes were identified: *Creation through disruption*, *External demands on digitalisation*, *Organisational identity*, *Legitimacy through investments*, and *Maintaining institutional structure*. The sub-themes will be presented in each main theme.

5.1 Creation through disruption

The company has since its foundation offered competence development but not as comprehensive as today. Historically has formal training been offered through classroom events and documented in excel files but since fall of 2021, the company has chosen to reinvest in competence development and, among other things, offer digital tools. Both for the training itself and a digital program for documenting training to make gap analysis to be able to determine which employee lacks a certain competence in relation to what the position requires. The organisation and the management teams has thereby taken a step away from traditional methods and created a new framework for how to conduct competence development which explains the choice of name for the main theme, *Creation through disruption*. It is the HR department who are responsible for the implementation while at the same time as the decision comes from the management team. When asking the interviewees about their perception of the current offered competence development, all interviewees mentioned general positive aspects with offering it, but also the current challenges they experience at the organisation and what conditions are needed to make better use of it. The interviewees do not focus on the content of the competence development offered but focus on their perceptions about the digital tools that were presented during fall of 2021. Although the company maintains that they are based on the 70:20:10 model when it comes to competence development, the interviewees rely on formal training in their statements during the interviews, which represents only 10% of an employee's learning throughout their career, according to the model (Internal documents, 2022). Since the managers do not mention the other aspects about experience and relationships to the same extent, this aspect will not be

considered in the analysis in the next chapters. Based on what the interviewees discussed it led to the main theme; *Creation through disruption* with the following three sub-themes: *Investment in digital tools*, *Perceived challenges* and *Cultural requirements for successful implementation*.

5.1.1 Investment in digital tools

When asked what the interviewees thought about the investment in competence development, it emerged that their perceptions were related to competence development in general and not to the digital tools. However, the advantages with offering competence development were described as important for taking advantage of employees' strengths and thereby increase the value of the employee for the company. Manager X18 describes this exemplarily as follows:

“The more you can, the more valuable you are to the company and the longer you stay” – Manager X18

Furthermore, the interviewees emphasize that there may be different reasons why companies choose to invest in competence development. It is described as primarily an investment in the workforce instead of measuring everything in money but also because of what society sets requirements, such as modern standards. One interviewee believes that the advantage of developing the staff is, among other things, increase understanding of each other and the cohesion in a team. Manager X3 explains:

“How people work and think yes you learn when you work with it and then you understand each other better and can thus also make better use of each other's strengths.” – Manager X3

Some managers discuss competence development as a tool to increase motivation for work and provide career opportunities. Since the company is global, travel occurs and, in those cases, it is believed that competence development can be beneficial for employees who experience different cultures where it is important to be able to communicate with people from other countries.

5.1.2 Perceived challenges with investment in digital tools

The managers describe challenges with the investment in competence development with digital tools in relation to time and structural barriers. The managers mean that it is not given enough priority since they are too busy with their own agendas that it becomes second priority. Whether this is because digital tools for competence development require more planning and structuring from the managers than it has done before is not clear. Other described challenges relate to whom competence development is offered. Manager X9 formulates it as if all employees can be offered competence development if needed, but it must be initiated by the person who has a need. However, if an employee is offered training, there is no clear purpose or plan for what the training should provide. Manager X9 describes this in the following quote:

"I do not think people just value it or see any benefits or think about what development we can get from it [...] I do not think management has focused on it and somewhere that's a shame, a lot of other companies have a very strong attitude, you work with the employee, training, a lot of internal recruitment and so on, but I do not think X has that attitude and I think we see that a bit in the fact that we have a higher staff turnover today [...] it's very ad hoc." - Manager X9

Apart from the fact that the employees themselves must initiate that there is a need for competence development, it is not given that you will be offered training, it depends on which manager you have and whether that manager sees a future purpose in offering training in a certain area. It is not clear whether this view concerns the latest investment in competence development or whether it is the general picture that managers have had for a long time. Manager X14 describes that competence development is offered at times during the right circumstances and refers to it as a "raffle" and a large portion of luck when training is offered to an employee. However, manager X11 does not agree with the above and believes that it is up to each employee to create a learning environment where you can create the tools yourself to be able to perform your work. Another manager believes that competence development does not occur at all at the company and expresses it as below:

"This has often been done via the internet. There is a lot to read there and to test and try to apply what you have read and learned. It's something that happens all the time and has to happen all the time because otherwise you quickly become irrelevant in your job role." -

In summary, there are divided opinions between the managers about what works poorly with the ongoing competence development at the company. Undeniably, certain elements are missing for the competence development at the company to work painlessly.

5.1.3 Required cultural conditions during strategic investments

In contrast to the managers' different experiences of the current challenges with the investment in competence development, they agree on what cultural conditions must exist for competence development to work optimally. Among other things, an inspiring and encouraging environment is mentioned as an important prerequisite and one manager believes that if you cannot inspire people to develop, they will eventually resign and apply to another company. If the employees want to progress in their careers, then they should be offered the opportunity to undertake training in the area where they believe improvement is needed. This is illustrated by the following quote:

"You should then be inspired that, no, but now I want to progress here in my career and then I need to become an expert in this area and so you can develop yourself in this area, maybe take a course [...] I think definitely, you cannot inspire that it's fun and inspiring to go to work and you'll quit and in the end, it's not good for the company." - Manager X16

The interviewees also mention the importance of clear instructions and objectives when new methods or practices are presented, such as digital tools for competence development. One interviewee believes that learning is not only about the employee going through formal or informal training, but also about having the basic requirements in place to make learning go more smoothly. What the basic requirements could be, the interviewee does not mention. Another aspect that is mentioned as important is that the employee should acquire the knowledge in practice to better understand the purpose behind the training. Digital training differs from classroom training in that you cannot physically see, feel, or practice group exercises. One of the managers thinks this is a shortcoming with the "new" competence development because you miss that part when you train digitally. This is illustrated by the following quote:

"If you set up clear standards and job descriptions of how to do something, you get a very

good foundation, but then, as I said, you should go out and practise and do it yourself, because that's important." - Manager X15

Those who have participated in formal training should be given a chance to follow up, says one interviewee. Manager X4 believes that employees who participate in digital training are mentally present during that time, but as soon as the training is complete, they forget the content and purpose of the training. Therefore, the manager calls for physical follow-up by the immediate manager or HR to the person who has completed the training. The manager expresses it as follows:

"I still think we should follow up. This is important. You can finish a course within 10 minutes to an hour because you know it's over. There needs to be a follow-up and maybe even something physical, I think people forget that easily." - Manager X4

Competence development is not part of the overall corporate strategy, and the managers believe that it should become a natural part of the investment made in the autumn of 2021. The manager believes that if it becomes part of the corporate strategy, it will be easier for the employees to understand the purpose of the investment and what expectations are placed on the individual employee.

5.2 External demands on digitalisation

The second main chapter is called *External demands on digitalisation* and refers to how the managers perceive that the organisation adapts to external demands on digitalisation regarding the current offer of competence development and the methods used. Today, competence development takes place through different forms, through experience, relationships, digital or physical training. The interviewees mainly focused on formal training, both through digital and physical in their explanations during the interviews. This chapter has therefore three sub-chapters: *Approach to digitalisation*, *Conditions for successful implementation* and *Perception of digitalised practices*

5.2.1 Approach to digitalisation

The interviewees have divided opinions regarding digital tools for competence development and their own experiences of it. Digital platforms are mentioned as more efficient than traditional classroom training, both in terms of time and space. It is described as good in that

you can hold a meeting for more people without further planning than at physical events. In addition, you can involve people who work outside Sweden, which is highly relevant for the company in question that works globally. Manager X3 discusses this as follows:

"If used in the right way, they are very effective and can reach many people, many more people than with traditional courses, there is no question about that [...] with such an international group, there are people around the whole group who know the whole group and there is a possibility that everyone is on the same level. If you were to have a face-to-face discussion, it's hard to do practically." - Manager X3

In addition to describing digital platforms for competence development as effective, flexibility is also mentioned as a positive aspect. It increases the possibility of being able to book meetings at short notice and you are not dependent on careful planning in the same way as at physical events. One of the managers also says that you do not feel as bound when there are digital events since you can cancel at short notice, and it is easier to rebook if something else happens. However, most managers mention negative aspects with the investment in competence development, including 'digital tiredness' which creates a reluctance on the part of employees to take on new tools. Manager X1 describes it as follows:

"My opinion of my colleagues' reception of digital tools is 'not a new system'. There is incredible digital fatigue in the organization, and it is not, as you hear, I am very positive about this. I think it's fun, I like systems, I learn them quickly still, I can see how they can be connected, yes, I'm very positive but that's not the normal picture in the organization." – Manager X1

Several interviewees mentioned the difficulty of capturing the nuances of people's different learning abilities depending on background and culture. Words and sentences can have different meanings for different people and therefore a manager believes that physical training, which was standard before the investment in the autumn of 2021, is better because it becomes easier to explain and ask questions when you meet physically. Another reason why employees are sceptical of digital tools for competence development, according to Manager x6, is because people are generally insecure about unknown tools and working methods. The following quote exemplifies this:

“This classic that you are sceptical of the unknown it is as part of human psychology so there are very many examples of it, everything from xenophobia that somewhere stems from not knowing or understanding how other people from other parts of the world might reason and think it is nasty.” – Manager X6

The general picture of the managers is that people who are exposed to change in the form of new processes or approaches should receive better support and guidance from colleagues and mentors who can encourage these individuals to become more open and prepared for similar changes as the investment in competence development with digital tools.

5.2.2 Conditions for successful implementation

In terms of conditions for successful implementation of new digitalised practices, one manager believes that it occurs several attempts to implement strategies based on external pressure but mean that there is no strategy adapted to digitalisation and new technologies. According to one manager, few people know the importance of digitalisation and therefore have problems understanding the need. There are only a few initiatives, but no comprehensive strategy. Manager X2 puts it this way:

“There is no digitalization strategy directly. There is no overall picture of what it could give us and what it could mean. There are some small islands and a little less initiative linked to digitalisation” – Manager X2

The importance of adapting to external demands such as digitalisation and new technologies was described by one respondent as key to survival. It is described as necessary if one wants to compete with companies in the same industry. Manager X8 comments on this with the following quote:

“And if we are going to stay as a company in 10 years, I think it is important that we are involved now or yesterday [...] so that is the key to whether we are going to make it at all if we do not want to remain in any mediocrity if we want to keep up.” - Manager X8

Some of the interviewees describes that many of the employees lacks an understanding of what external demands from society entail and how companies should or should not relate to it. One of the managers believes that it may be due to the mental attitude that exists in the

company towards changes that threaten one's own or others' work situation. With that said, another manager believes that the biggest challenge with the new investment in competence development with digital tools is to change the mentality of the employees to be able to create an understanding of the purposes and aims. If you have worked in a certain way for a long time and suddenly having to change your mindset, it will become difficult to adapt. Manager X8 interprets digitalisation as learning a new language and expresses the challenge as follows:

“We do not have the competence to sort out situations, but then you must start with recruitments. It's a bit like learning a new language.” – Manager X8

In contrast to most of the interviewees, one manager thinks that digitalisation does not put pressure on the organisation to adapt. The organisation can decide for itself whether it wants to introduce digitised processes or not. As one manager described, it can be dangerous to introduce new methods too quickly before evaluating how other companies have dealt with it.

5.2.3 Perception of digitalised practices

The interviewees have divided opinions regarding digital tools for competence development and their own experiences of it. Digital platforms are mentioned as more efficient than traditional classroom training, both in terms of time and space. It is described as good in that you can hold a meeting for more people without further planning than at physical events. In addition, you can involve people who work outside Sweden, which is highly relevant for the company in question that works globally. Manager X3 discusses this as follows:

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The general picture of the managers is that people who are exposed to change in the form of new processes or approaches should receive better support and guidance from colleagues and mentors who can encourage these individuals to become more open and prepared for similar changes as the investment in competence development with digital tools.

5.3 Organisational identity

The third main theme is *Organisational identity* and relates to the managers’ description of the organisation’s culture and structure. The company is described as standing for good values where you encourage the employees to show commitment and curiosity to the work, you get

things done and you give and receive constructive feedback to each other. Some managers believe that there are challenges linked to the first point that emphasizes the importance of showing curiosity about learning and development. This is further described in the following subthemes: *Cultural Attributes* and *Structural Barriers*.

5.3.1 Cultural attributes

The organisational culture is good, says the managers and what reflects the culture best are words like pride and loyalty. Some of the managers believe that this may be due to the company's long history and that many of the employees have worked for the company since the beginning of their career lives. The managers mean that this has created a certain bond between these people and the company, as well as between colleagues. Manager X12 describes this as follows:

“X-spirit, i.e., helpfulness, takes care of each other, caring, and yes, you name it, all good really, it was sharp... [...] Most people who came here would only be here 1 year and came from the north, came down here and stayed 20 or 30 years, quite common or even very common so you stay for a long, very long time. – X12”

As Manager X12 expressed, many of the employees stay with the company for a long time and there is a special spirit that consists, among other things, of helping and caring for each other. Considering that many of the company's employees have known each other for a long time, Manager X1 emphasises the familiar feeling and belief that you are a central part of the company's history. The climate is described as open, with well-established values formulated in internal documents available to everyone. This is described in the following quote:

“ [...] an open climate where you can say what you think and what you feel within the limits of what is politically correct so to speak. But kind of sound values, we have quite clear values today [...] it is clearly stated what basic values we have, and we should relate to in different situations. ” – Manager X8

When it comes to employees' ability to influence work tasks, it is clear from the interviews that the culture has changed from a climate where people did what they liked to a clearer framework and "common language" for how to work, as Manager X8 describes it.

5.3.2 Structural barriers

Structural barriers are mentioned, among other things, to be linked to the difficulties that can arise with having staff who have been at the company for a long time. Although it is positive with high loyalty and a familiar feeling, the managers emphasize the side effect of this, namely that you as an employee expect a lot in return from the company and what the company can adapt to the employee's needs. The following quote from Manager X5 illustrates this:

"You expect a lot from the company, I can feel in the form of... what the company can do for me or adapt to my needs." – Manager X5

The managers express that there is a strong will among the employees that methods and strategies should be adapted to their interests, and they are keen on keeping the original structure of the company. With that said, it is important to change the attitude of the employees if the purpose is to implement new ways of working, says Manager X6. The following quote exemplifies this:

"We have many employees who have very long experience, are extremely competent in the field but also very used to doing things in a certain way... [...] we probably have a pretty big challenge if we want to change the way we work in that way..." – Manager X6

There is a clear resistance when implementing new methods or strategies and it is, therefore, according to the managers, essential to actively work to change the mentality and attitude of the employees. As soon as you change the way you work, it is interpreted as control. Manager X11 explains that this leads to great dissatisfaction, which results in employees not engaging with new practices and causes disruption in the organisational structure. Considering that most employees are older and have worked in the company for a long time, there is a strong desire to return to how they worked in the past and what feels "safe". Most of the interviewees believe that the resistance stems from the fear that one's tasks will be replaced by a robot, which in turn creates scepticism and eventually "closes" the employee. Manager X1 describes this as follows:

“We don't have the time to get into the new systems and that only means that the whole situation gets stressed and that can be enough for some, and it completely locks up if you don't want to.” – Manager X1

In summary, even if the managers describe the culture as good with a familiar, open climate where you are helped, there is a mentality that is against change, and you strive to maintain methods and structures in their original form.

5.4 Legitimacy through investments

The fourth main theme is *Legitimacy through investments* and refers to the interviewee's portrayal of how the organisation works with strategic planning and how that can be interpreted to achieve legitimacy. This will be explored in the following two sub-themes: *Strategic approach* and *Shortcomings in strategic work*. The managers agree that there is an official corporate strategy for how to work with various issues, despite for competence development. Nevertheless, the interviewees have difficulty in describing how the company works strategically and how its related to external demands from society.

5.4.1 Strategic approach

The interviewees state that there is a formulated business plan to which all employees have access but there is no general approach to how the managers should work strategically. It becomes clear from the interviewees that each manager works strategically based on their department and existing conditions. Manager X11 describes it as follows:

“We try to be foresighted. We have planning meetings where we try to look ahead, what are the expectations that can come at us and what is it that we have to do to build on our ability that makes calls and what do we want to achieve ourselves because it is a trade-off, we can not only run after other people' agenda as well as we also have to pursue our agenda that we think benefits the company best and then we try to have strategic planning meetings and anticipate what it is we need to do.” – Manager X11

Some of the managers believe that the company to some extent has a long-term perspective when working with strategic issues and there is a willingness on the part of the company and

the management team to be proactive on important issues. Manager X3 describes it as follows:

“A part of the role is to develop the strategy for what we need to do. Then it is to understand what we want to achieve and the business side so to speak and what do we need in X to meet the requirements and needs that exist and break it down then into, or then translate it into [...] “here we need to increase capacity” or “here we need to increase capability” – Manager X3

As stated in quote above, the company strives to formulate strategies based on future goals and this may include the need to increase certain capabilities, but it is not the same for managers or employees to understand how to work with these strategic issues.

5.4.2 Shortcomings in strategic work

Even though some managers believe that the company's strategic approach is well formulated, it is also discussed as in need of improvement. One of the things that emerge during the interviews is that strategies have been set without a holistic perspective, and no consideration has been given to how long it will take to implement them in the organisation, and what is required from employees in terms of commitment and understanding. Manager X5 describes this as follows:

” [...] you underestimate the time and effort needed to make a new organisation work” – Manager X5

In addition, some managers are described as focusing on the present rather than working proactively and dealing with problems as they arise. Manager X16 explains the problem in the following quote:

“We've been working a lot in the present to solve problems so it's only now that we've just started looking at our five-year plan [...] that we jointly describe a goal that we want to achieve and then the person or team gets to solve the task in their way to the best of their ability and I think that inspires you to grow as a human being [...] so that you don't think so much but more just do” – Manager X16

Even though the implementation of new strategies is described as slow, fast results are expected. According to one interviewee, this may be because the company employs high-ranking managers who bring with them working methods from their previous employers that may not fit in with how they work at the company in question. If those managers believe that the pace is too slow, they take shortcuts that may not involve all staff, creating gaps and damaging the organisational structure, which could be difficult to repair. One respondent also raised the fact that many strategies require a certain level of competence that do not exist. To cope with the increased demands that certain strategies brought, some managers have to expand with more resources. This means that they cannot meet the demands themselves but have to outsource the work to competent people externally. One interviewee describes the problematics with the following quote:

“Suddenly you expect a lot more from a certain group of individuals without actually giving them the resources or tools to cope with it properly.” – Manager X11

When the interviewees are asked why strategic work is often met with resistance, it is discussed as a matter of time. Strategies that affect the whole company do not have time to land until a new strategy is presented and that other ongoing processes are rarely considered, which in turn means that employees do not have time to familiarise themselves with it before it changes.

5.5 Maintaining institutional structure

The last main theme is *Maintaining institutional structure* which discusses how the employees are described by the interviewees striving for maintaining the traditional structure of various practices, including competence development. Important to mention is that during the interviews, it was noticeable that the interviewees had difficulty describing what Industry 4.0 and digitalisation means, so their descriptions differed from time to time depending on their understanding. However, the employees' approach to the investment in digitalised competence development is described differently by the managers and some of them put it in perspective to themselves while others put it in relation to the company. The following two sub-themes will be discussed in this chapter: *Perceived benefits with traditional methods* and *The reception of digitalised practices*.

5.5.1 Perceived benefits with traditional methods

The interviewees believe that competence development through physical events provides a better experience for the participants. One manager explains that physical training allows for better concentration because it requires physical presence and there is no opportunity to do other things, such as read emails while listening. The manager also points out that it becomes easier to have discussions physically than digitally. The following quote from Manager X15 explains this:

" [...] then I can see that it's better to do it in the classroom, sort of on the spot, then it's certain to get used to it, then you achieve the better on certain pieces and get better discussions and people are more present when they are there." - Manager X15

Several managers believe that physical education is required in the areas where you physically need to see and feel, for example, a material. It also appears during the interviews that you remember physical training better than digital one, which in turn means that you can apply what you have learned in a better way. The general picture of the interviewees is that digital training only teaches on the surface while physical training goes down in depth. However, one of the managers emphasizes that one must not forget the costs that come with physical education in relation to digital education, which is practically free. Manager X3 expresses this as follows:

"[...] in some cases it is better to offer a traditional face-to-face event, but the face-to-face event also has its limitations in terms of cost and opportunities for people." - Manager X3

In summary, the interviewees emphasized the benefits of physical training in contrast to digital training. However, the managers do not address the content of the training offered and have difficulty describing what courses are being taken. Thus, it is difficult to determine whether the content of training is a direct effect of industry 4.0 and digitalisation, which places demands on other competencies than what was needed previously.

5.5.3 The reception of digitalised practices

According to the managers, there is a resistance against digitalised methods and processes. It is described by the managers as in terms of emotional factors with fear of letting go of the past. Manager X18 describes it as being used to a certain way of working and as soon as

something different is introduced, you feel like you lose control of your personal tasks and responsibilities. Another manager believes that the resistance might be because many employees are older and therefore perceives digital tools as exhausting. This is described by Manager X18 in the following quote:

“You are used to being able to take care of yourself quite a lot and experience this as yes, but a bit like a threat that now you will become more controlled, you have to fulfil more” – Manager X18

One interviewee interprets the resistance as being related to the fear of being replaced by a robot or AI and emphasises the importance of explaining to these worried employees that the human factor will always play an important role in doing business, but that digital solutions can both increase opportunities and improve business performance. Manager X5 discusses this as follows:

“[...]as we all humans feel as soon as a change occurs, that it is a threat to my job being replaced by a robot and an AI or something [...] we humans are not always so prone to change and the older we get, the less likely we become [...] it will increase our opportunities” – Manager X5

In summary, in terms of benefits, challenges, and conditions with the investment in competence development, it is described by the interviewees as an important investment based on the requirements of society. However, for successful implementation, certain conditions must be present and the most important one is according to the managers an inspiring, encouraging environment with clear methods for how to proceed. Even if competence development is offered at the company in question, the managers believe that it is not given enough priority and once training is offered, there is no clear description of what the purpose and aims are. Although the investment in competence development is not explicitly described by the management board and HR as an effect of industry 4.0, the managers believe that it is a result of increased external pressure on modern standards. The common image of the interviewees, however, is that there is digital tiredness and the employees do not fully understand the purpose of the investment in competence development. Some strategic decisions taken by the company is described as lacking an overall approach, and the management tends to be results-oriented instead of seeing what the company and the

employees can handle in relation to the culture and structure that exists in the company. Even if the culture is described as familiar with an open climate, there is a strong desire to preserve practices and processes that are historically considered to have worked. The interviewees' description of the company and their experiences of investment in competence development will be analysed in relation to neo-institutional theory and institutional work in the next chapter.

6. Discussion

This chapter will present the analysis of the empirical results in relation to the purpose of the case study. The interviewees' perceptions about the investment in competence development will be discussed in terms of previous study and the theoretical framework. The empirical material shows that the managers are critical towards the investment in competence development, but it is important to mention that there are also positive experiences of the investment. Thus, given that the majority show criticism or resistance for various reasons, that will be of focus in this chapter.

6.1 Legitimacy and decoupling

Industry 4.0 concerns areas such as increased demands for digitalisation and skills in areas such as analytical thinking. The investment in competence development regarding digital tools at organisation X can be interpreted as a strive for reaching legitimacy in the industry sector the organisation is operating within (Lawrence et al., 2009) and how the organisation adopts rationalised myths from the external environment, e.g., methods they consider beneficial (Eriksson-Zetterquist (2009). Organisational legitimisation is crucial for long-time survival in modern society and from the empirical evidence, the investment in competence development is perceived as the key to survival. Thus, investment in competence development can be interpreted because of the company adopting rationalised myths such as digital competence development from the institutional environment and thereby reaching legitimacy (Eriksson-Zetterquist, 2009). In May 2022, the company will be scrutinised for the efforts made regarding their new investments which can be interpreted as coercive isomorphism in institutional settings, where organisations are pressured to legitimise themselves by laws and regulations such as auditors and ISO standards (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). In relation to institutional work, it confirms the fact that the management team and HR need to relate to external requirements and thus try to create a new institution while the managers' experience is that the employees are not positive about the institutional change and rather want to maintain stability (Beunen & Patterson, 2019).

When the investment in competence development with digital tools was introduced in autumn 2021 it faced resistance from the employees because of fear of unfamiliar practices. The empirical results show that the employees are not entirely comfortable with digital methods for competence development and prefer to have it as it has always been. New work practices

are introduced so frequently that the employees do not have time to familiarise themselves with them before something else is implemented. As the empirical results present, strategies are taken without a holistic perspective which leads to feelings of being controlled. Disengagement appears because of adaptation to demands of the external environment that the employees, internally, strongly oppose (Meyer & Rowan, 1977; Eriksson-Zetterquist, 2009).

6.2 Industry 4.0 and competence development

Industry 4.0 expects that organisations in the industry sector implement digitalised and high technological work methods (Frank et al. 2019). The investment in digital tools for competence development at organisation X can thus be seen as an adaptation to external pressures from society for modern digitalised methods. However, the empirical material reveals that the employees have difficulties with adopting digital solutions and question their usefulness and purpose, which might explain why they cannot make use of it in the best way. Adopting digital solutions such as digital tools for competence development symbolises a culture willing to change (Hinings et al., 2018) even if the empirical material shows the opposite where the employees prefer to keep original work practices and methods. De Vos et al. (2015) underline that successful competence development requires the employees' understanding and willingness to make use of digital tools which can be interpreted as an area in need of improvement.

The managers' interpretations of why companies offer competence development is because they want to offer their employees training in areas in which they need to gain increased knowledge and thereby motivation for their work. Jonsson & Scholin (2016) believes this to be one of the basic reasons why companies choose to offer competence development for their employees. The biggest difference between what competence development looks like today compared to before is that digital tools are used to a greater degree to offer training in different areas. However, the interviewees believe that formal training should not only be offered via digital events but also through practical events. This is echoed by Berlin et al. (2010) who stress the importance of combining physical, digital, and experiential learning to achieve positive outcomes with competence development. Although one of the purposes of introducing digital tools for competence development is to streamline and simplify for the employee (Internal documents, 2022), some managers still believe that competence development is not given enough priority which Srikanth & Jomon (2020) emphasize for

successful learning, that competence development should have a clear framework and the employees should receive support from the management team to become effective (Srikanth & Jomon, 2020). Previous research indicates that traditional work methods will be challenged by industry 4.0 and digitalisation (James et al. 2022) and enable more flexible and efficient work. The purpose behind the investment in digital tools for competence development at organisation X might be linked to what James et al. (2022) state but it requires great effort from the management team and HR to create understanding and receive support from the employees for the investment to become successful (Srikanth & Jomon, 2020).

6.3 Creation, maintenance and disruption of an institution

In terms of institutional work, both the management team, HR, and the employees can be interpreted as active actors who, with reference to the results, have different agendas linked to the investment in competence development that has taken place at the company since fall of 2021. The investment in digital tools can be interpreted from the management team and HR's perspective as the disruption and creation of a new institution while the managers perception can be interpreted as in terms of maintenance of an institution. As suggested by Beunen & Patterson (2019), actors can either take non-purposive or purposive actions to create institutional change and affect stability. Even if the management team and HR can be interpreted from the managers experience as actors who aim to change the offer of competence development, it is not certain that their actions are purposive or intended to change competence development as an institution given that neither HR's nor the management team's perspective has been considered in this study.

As mentioned above, the investment in competence development at organisation X can be analysed from two perspectives; as an investment taken by the management team and HR as actors, to both disrupt and create a new institution, or from the managers' descriptions where the employees want to maintain the original institution. External pressures as Industry 4.0 and increased pressures for digitalised tools have affected the management team to invest in competence development and present a new framework for measuring competence to create a new institution (Lawrence et al., 2009; Lawrence et. al., 2011). Considering that the HR department at the company has introduced the investment in competence development for the managers through workshops to gain understanding and engagement, it can be interpreted as linked to the third broad category defined by Lawrence et al. (2009) about meaning systems

where mimicry, theorising, and education is key for successful creation of a new institution. However, considering the managers' perceptions about the poor implementation of the investment in competence development can educating, in the form of interaction and understanding of a change, be an area that HR and the management team are convinced that they have considered, but based on the managers' experiences, it seems to be deficient. As the empirical results show, the employees have been educated in digital tools for competence development as well as described by the management team and HR about the legitimisation of new practices, as connected to external pressures for digitalisation within industry 4.0. Thus, since the empirical results show that the employees do not comply with the creation of a new institution, it can be interpreted as if the process, since it is a process rather than in terms of accomplishments (Lawrence et al., 2009; Lawrence et. al., 2011), as currently facing resistance from the employees. However, this does not necessarily mean that the process will continue in the same direction but can rather be interpreted as one step in the process.

In contrast to the management team and HR as actors aiming for the disruption and creation of an institution, the managers' interpretation of the investment can be interpreted as willing to maintain the institution since their portrayal of the investment in competence development indicates that they strongly oppose new practices that feels unfamiliar. From the managers' perspective, the employees' scepticism against unknown practices indicates that they want competence development to remain in the "original" shape. In terms of institutional work, this can be interpreted as mythologising where embedding and routinising is two elements that which, based on the manager's description, is what goes on. Embedding and routinising emphasises the importance of maintaining established routines such as competence development that are well preserved (Lawrence & Suddaby, 2009). The resistance from the employees against digital tools, which are a consequence of a change in the external environment such as industry 4.0 and digitalisation, can be analysed to be based on willingness to maintain pre-existed routines and practices for competence development (Lawrence et al., 2009). It can be interpreted as the managers being against industry 4.0, but since they had difficulty defining what industry 4.0 is, the opposition can rather be interpreted as being against digitalisation, which on the other hand is part of industry 4.0.

As Cloutier et al (2015) suggested in their framework about necessary actions for the management to take during the reform of institutional work, each area of structural, conceptual, and operational work can be seen in organisation X except relational work where

trust and collaboration are key for successful implementation. According to the interviewees, the employees lack understanding and engagement in the investment in competence development and since the empirical results show that the three first areas are considered during the implementation, it can thus be interpreted as if trust is the main pillar that is missing (Cloutier et al., 2015).

7. Conclusion

The purpose of this case study was to explore how the investment in competence development at organisation X is portrayed by managers in relation to industry 4.0 and how it can be explained from neo-institutional theory. This chapter will present the conclusion of the discussion by answering the two research questions **(1) What are the managers' receiving of the investment in competence development as part of external requirements for digitalisation?** and **(2) How can the investment in competence development be interpreted based on neo-institutional theory?** Moreover, implications for practice, limitations, and recommendations for future research will be presented.

7.1 What are the managers' receiving of the investment in competence development as part of external requirements for digitalisation?

The managers' general picture of competence development is positive, but the latest investment with digital tools has been met with criticism and resistance. One of the main issues, according to the managers, is poor implementation with no clear aim presented to the employees. This has led to the employee's lacking commitment and motivation. The investment in competence development with digital tools can be interpreted as an adaptation to industry 4.0 since the managers' perception of why the company has decided to invest in digital tools is due to an adaptation to modern standards, which can be interpreted as equal to industry 4.0 with increased demands on digitalisation and technology for practices such as competence development (Andersson et al, 2010; Frank et al., 2019). Moreover, the fact that the employees are unwilling and lack commitment to acquiring digital competence development supports the thesis that willingness is required for the parties concerned to take on new ways of working such as digital tools (De Vos et al. 2015) and when training is considered to require more effort than the employees believe it is worth in terms of workload, it becomes counterproductive (Hauer et al., 2017). Successful investments in any area require a clear framework and a motivating purpose for the people involved to understand the need (Srikant & Jomon, 2020). The interviewees' negative experience of the recent investment in competence development can thus be interpreted as due to lack of poor implementation.

7.2 How can the investment in competence development be interpreted based on neo-institutional theory?

Competence development can be offered in various ways and during the fall of 2021, organisation X decided to invest in digital tools. As the analysis and results show, the company's decision to invest in digital tools may be due to the desire to legitimise itself by introducing modern technology, which is expected of companies within an institutional setting. However, as the analysis indicates with strong scepticism against new methods, the investment can be interpreted to be an action taken formally without anchoring it informally due to the employees' low adaptability. To handle this inconsistency, the organisation might decide to decouple practices such as competence development by externally adapting to demands from society while keeping the original internal structure and culture to deal with the resistance that arises. In terms of institutional work, Beunen & Patterson (2019) discussed purposive or non-purposive actions taken by actors and the investment in competence development can be interpreted to have good intentions by the management team but due to the negativity that has occurred, it explains how the interest of various actors affects stability and institutional change. The actions taken by the management team and HR regarding the investment in competence development can be interpreted as aiming for disruption and creation of a new institution, while the managers and the employees are discussed as striving for maintaining the institution (Lawrence & Suddaby, 2009). Cloutier et al. (2015) mentioned relational work as an important prerequisite for successful institutional change and it refers to trust and collaboration and given the resistance that exists, it can be interpreted as trust and cooperation being something that can be improved.

In conclusion, this master thesis aimed to discover how investing in competence development can be a result of adapting to industry 4.0 and possibly explained by neo-institutional theory and institutional work. The results show a complex situation where the management team and HR as actors have an agenda based on external pressures from society that does not comply with the employees. They are willing to disrupt and create a new institution while the employees strive to maintain the institution. Whether the resistance from the employees depends on cultural or structural barriers is difficult to determine but the bottom line is that the new working methods for competence development have been met with resistance and it can be discussed whether it is due to poor implementation or a larger problem where one might need to review the work culture. As the empirical results show, people who have been

recently hired expect fast results and sometimes take decisions that do not fit with the internal structure. The business strategy can be interpreted as result-oriented where it becomes secondary to consider where the company stands today and if the current structure and the employees are sufficiently mentally prepared for initiatives such as the investment in competence development. The employees are described to show resistance against changes that create feelings of being controlled and according to De Vos et al. (2015), successful strategies are based on that the employees feel motivated and are willing to learn. Therefore, one can argue that trust in the management team, as well as in HR, is an important ingredient for successful investments (Cloutier et al. 2015). One should not forget, however, that conflicts of various kinds always occur, but it is perhaps more about how one chooses to handle them and how one jointly finds a way forward.

7.3 Implications for practice

The results of this case study primarily provide the organisation in question with guidance on how to implement similar practices in the future. From the empirical data and analysis, it became clear that the interviewees found the implementation of the investment in competence development to be poor. The basic idea of the investment in competence development was good, according to the managers, but the presentation and implementation were not met with understanding. Therefore, the results of this study can hopefully serve as a guide for the management team and HR on how to improve the implementation process with similar initiatives in the future. Moreover, the results can hopefully guide other organisations that are planning to invest in similar projects and thereby become better prepared for possible setbacks.

7.4 Limitations and recommendations for future research

As indicated earlier in the study, it would be beneficial for future research to include both staff and departmental representatives of HR for the interviews to reveal different nuances of a particular phenomenon. Due to the pandemic and risk of infection, conducting physical interviews was not possible which might have offered interesting factors to analyse, such as body language. Moreover, the results of this case study are limited to explaining competence development at an organisation within a specific context and sector. A recommendation for future research would be to compare companies from different sectors and whether the global areas of activity have a different approach than Sweden to competence development. Another

suggestion would be to combine qualitative methods with quantitative ones to cover a broader group of employees.

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Appendix 1 – Code Scheme

MAIN THEMES	SUB-THEMES	CODES
Creation through disruption	Investment in digital tools	Embrace individual strengths, increase value, Create motivation, Contribution to business, Adaption to modern standard
	Perceived challenges with investment in digital tools	Second priority, Ad hoc, Depending on the manager, Managers' responsibility, Lack internal career paths
	Required cultural conditions during strategic investments	Inspiring environment, Clear expectations, Follow-up, Encouraging climate, As part of business plan
External demands on digitalisation	Approach to digitalisation	Recurring attempts, Lack of strategy, Lack of holistic approach, Key for survival, Realise the purpose
	Conditions for successful implementation	Global functions, Innovative thinking, Competence, Adjusted mindset, Mentorship
	Perception of digitalised practices	Effective, Increased opportunities, Lack of commitment, Digital tiredness, Use as a complement
Organisational identity	Cultural attributes	Pride, Loyalty, Generosity, Familiarly, Freedom, Openness, Common language
	Structural barriers	Insecure expectations on roles, high turnover, resistance, habitual behaviour
Legitimacy through investments	Strategic approach	Result-oriented, Long-term perspective, Proactivity, Clear formulation
	Shortcomings in strategic work	Try and error tactics, Slow pace, poorly anchored, Missing the target, Reactive
Maintaining institutional structure	Perceived benefits with traditional methods	Better focus, Hands-on
	Reception of digitalised practices	Lack of time, Scepticism, Exhausting, Fear of being replaced, Feeling of being controlled

Appendix 2 – Interview guide

Interview guide

Introduction to the interview

My name and educational background

Introduction to the study, purpose, and topics.

Time required

Information about what will happen after the interview

Permission to record

Topics to be discussed

Ask the interviewee if they have any questions before the interview starts

* Competence development = Digital, classroom training, through experience or by relationships

Background

1. Tell us about your role in the company

- *Examples of tasks*

The organisation

2. How would you describe the culture of the company, e.g., in terms of language, traditions, norms and values?

- *In the department and the whole Swedish organisation?*

3. How often would you say the company introduces changes that affect your tasks, organisational goals and/or strategies?

- *What is the most recent organisational change that has affected your role and/or tasks?*

- *Are the changes based on long-term or short-term goals?*

4. Do you receive support from the organisation in implementing various changes related to your tasks that affect you?

- *If yes, from whom and how? Give examples!*

5. In what way are you involved in the strategic change work?

- *Your department or your company as a whole?*

6. What guidelines and requirements do the organisation place on you as a manager and your tasks?

- *How are these passed on to you?*

Competence development and digital tools

7. What does competence development mean to you?

- How does company X work with competence development?

- In what way do you participate in competence development?

8. Do you think that competence development is an investment for the company, if so, how?

- *Does company X work with competence development given the digitalisation the industry is facing?*

9. What do you think about formal education via digital tools?

10. What do you think is the reason why the company chooses to provide training via digital tools?

- *Do you think there are any external factors behind the initiative? If yes, which ones?*

11. How are new digital tools introduced to you as a manager?

- *Have you received support e.g., from the department HR or the management team?*

12. What is the general attitude of the company towards competence development?

Digitisation and new technology

13. How would you describe what digitalisation is?

14. How does company X deal with the increased demands, e.g., about digitalisation and new technology?

- Do you think this development will have an impact on the company and if so, how?

15. Do you think there are current or future challenges for the company related to digital development and new technologies?

- If yes, what are they?

16. Looking 3 to 5 years into the future, what skills do you think will be important to keep up with the increasing demands of digitalisation and new technologies?

Learning on the job (70/20/10, where 70 = experience and 20 = relationships)

17. How do you deal with this theory? (Learning that takes place in daily work)

- Is there a difference between what you learn at work and formal training? If yes, which ones?

Summary

18. Is there anything else you would like to address before we close or anything I forgot to ask?

Thank you very much for the interview and your participation in the study! Can I contact you afterwards if I realise that I forgot to ask something or need further clarification about an answer?