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How can organizations successfully implement digital transformation with the use of change management?

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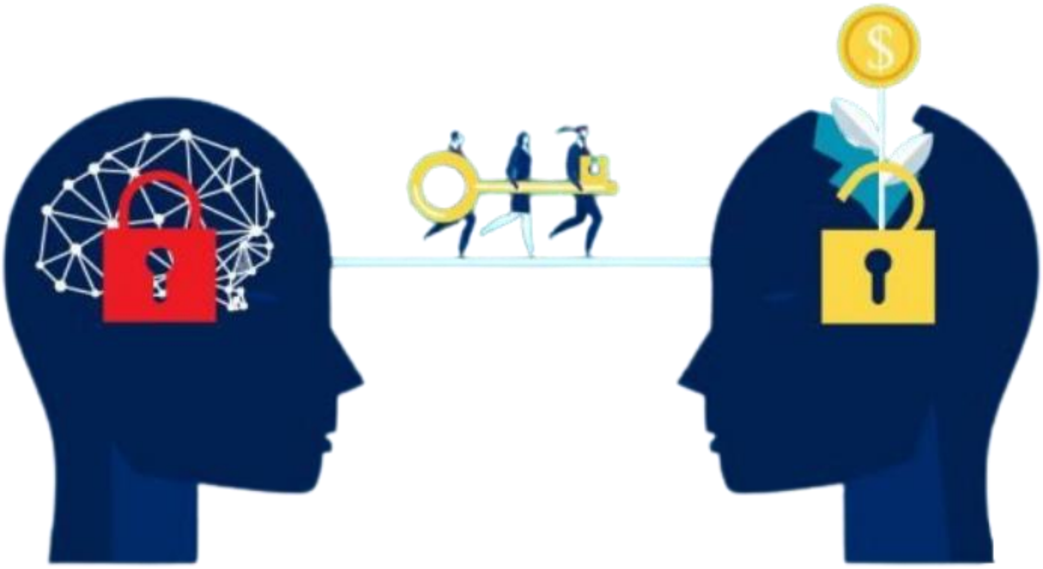

How can organizations successfully implement digital transformation with the use of change management?

Summary

External forces like Industry 4.0 and the emergence of Covid-19 have put pressure on organizations to change. As organizations try to prepare and adapt to these forces, they look to implement changes that include modernization and advanced technology (Irvine, 2020). Through the pandemic, it is clear that some organizations have managed to successfully adapt to these changes, while some have experienced failure. This raises the question; *what are the key factors of succeeding with digital transformation?* While there are countless strategies and theoretical frameworks on approaching change, it is surprising to see that 70% of all digital transformations fail to achieve their intention (Forth et al., 2020).

Change management is a term that has increased relevance in the last decade. Change management is a framework that focuses on the people's and employees' side of change (Jägare et al., 2019). This opens up a new dimension to digital transformation and makes it more complex. Putting human perspective at the core of the change process, brings new opportunities as well as challenges. Providing personalized experiences and individual communication has been revolutionary for many organizations. However, it can bring challenges such as resistance to change and the need for further resources and capabilities.

"Change never starts, because it never stops"

(Weick & Quinn, 1999)

Based on the theoretical framework and insights from qualitative research methods, a new model presents digital transformation as a continuous and complex process. The model puts human perspectives at the core, and recommends the four phases; *prepare for change, craft a flexible plan for change, implementation process and analysis and review.* Throughout changes, organizations must prioritize individuals as the most significant aspect in change management. Covid-19 reminded us that it is impossible to foresee what the future holds. Thus, having a continuous change process that "never stops", is essential for an organization to survive and keep a competitive advantage.

Preface

This bachelor thesis is the final paper in International Management at BI Norwegian Business School, Stavanger, during Spring 2021. Our bachelor thesis includes research on the use of change management in digital transformation. This topic has gained increased attention during the last years, especially now during the Covid-19 pandemic. Organizations were forced to adapt to new changes and increase the use of digital transformation. It is a complex and relatively new topic to research, and this leads to challenges along the way when the authors have had limited knowledge in advance. The authors have used a lot of time looking into an endless amount of research, reports, and articles regarding the topic to understand the overall dimensions. As a result, the authors have had a steep learning curve. The theoretical frameworks, discussion, and qualitative interviews have especially been educational parts of the thesis.

The pandemic made even more challenges for the authors, as the collaboration had to happen through digital tools. However, the cooperation between the authors has been enlightening and educative. It has been essential to help each other, discuss findings and show support along the way, which has resulted in increased motivation and knowledge.

A special recognition to the interview participants that wanted to be a part of the research and give us meaningful insight on the topics has to be mentioned. As well as an appreciation to our supportive supervisor, Morten Abrahamsen, who has taught us how to write a research project in detail. Without these collaborations, the thesis would not exist.
Hopefully, the essence and topic of the research are well explained, and the finished result provides interesting insights for you as a reader.

02.06.2021

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1. Introduction

1.1 Background for the chosen theme

Changes can bring benefits such as globalization, lifesaving technology and increased living standards. However, it can also bring the disadvantages of breaking out of the comfort zone, feeling vulnerable and having an unpredictable future. The meaning of change has increased relevance when looking at the past year. When Covid-19 came into full force, a lot of organizations had to renew their current strategies, aim for digital transformation and adapt to the new situation.

"The only thing constant within organizations is the continual change of these organizations."
(Elving, 2005, p.129)

Since the first industrial revolution in the 18th century, when agricultural societies became industrialized and urban (Deane, 1979), to the entrance of the fourth industrial revolution (Industry 4.0) today, a lot has changed. External forces to change, such as Covid-19 and Industry 4.0, includes the use of advanced technology and IoT (Internet of Things) to mention some. (Irvine, 2020). Some organizations are able to implement these changes fast and achieve digital transformation, which can result in competitive advantage and stronger market position. By contrast, other organizations simply find it extremely challenging to manage change.

From there, change management was quickly noticed as one of the repetitive subjects within organizational change, and specifically in digital transformation. Furthermore, looking at how human perspective drives change and how crucial employees' role in change was the centre of change management. The authors found this issue and subject genuinely interesting. The authors found the subject to be under-researched, since multiple studies showed a high percentage of digital transformations failures and most of the traditional change management models were not updated to Industry 4.0. Also, there was a lack of research on how organizations manage to implement digital transformation through change management. Studies often focus on the new technology itself and its challenges, instead of the human element. Therefore, the research in this thesis focuses on the management of employees in digital transformation.

1.2 Presentation of problem statement

As a result of the presented research topic above, the core of research is based on considerations when using change management in an organizational change such as digital transformation. Our research problem was defined as:

How can organizations successfully implement digital transformation with the use of change management?

1.3 Research questions

To be able to answer the problem the design of four research questions was made. The questions should help delimit the thesis, as well as act as an aid to be able to draw a conclusion.

Q1: How do external forces create an effect of urgency to change and impact organizations digital transformation?
Q2: Which approaches to change management will result in an effective digital transformation?
Q3: How can the employees' perspectives and attitudes on change affect the resulting outcome?
Q4: Which methods and success factors successfully drive digital transformation?

1.4 Delimitations

Both digital transformation and change management are broad topics. Due to size limitations of the thesis, the authors decided to narrow down the aspects instead of trying to cover them all. In consequence, the focal points of the thesis are the human-aspects of digital transformation, rather than the technology itself. As well as the use of change management to succeed with the transformation. The thesis is built up on a management point of view, due to the focus on change management.

1.5 Structure of the thesis

The thesis includes five chapters that together fulfill the goal of the research. Chapter 1 is “Introduction”, and aims to give the reader an introductory insight and overview on the topic of the thesis. Additionally, it explains the existing lack of research. Chapter 2 is the “Theoretical Framework”, which consists of relevant literature, articles and reports. This chapter gives the reader further understanding of the research topic. Chapter 3, “Research Methodology”, indicates how and why the authors have collected data using qualitative research methods. It also explains the participant selection for the qualitative interviews, and how these have been conducted properly. Chapter 4, “Discussion and analysis”, aims to see similarities and differences in the theoretical frameworks introduced in Chapter 2 and empirical data collected in Chapter 3. Lastly, Chapter 5, “Recommendation and conclusion”, explains findings throughout the research and in result answers the research question created in Chapter 1. At the end there is a list of references used, as well as relevant attachments.

2. Theoretical framework

This chapter represents and reviews the theoretical framework used in the thesis. This chapter aims to give the reader an overall understanding of the topics that the thesis touches on. Particularly the research found on digital transformation and change management are the primary basis of the theoretical framework. The theory will contribute to a better foundational understanding of the qualitative interviews’ findings and for the research question to be answered properly. Sources used to find relevant literature, articles, and reports are primarily Google Scholar, Oria, and BI Library. The authors have placed great emphasis on finding appropriate literature. The final used theoretical framework has been critically evaluated to understand its credibility and origin.

2.1 Introductory concepts

Initially, to understand the thematic of the thesis, there are a few concepts that need to be explained.

2.1.1 Industry 4.0

The concept Industry 4.0 was first introduced as a Government program at the Hannover Messe in Germany in 2013. The term Industry 4.0, also known as the fourth industrial revolution, defines the ways manufacturers adopt technology such as IoT (internet of things) as a core component of their operational strategies (Irvine, 2020). The whole manufacturing process is automated and digitized to increase efficiency and change existing business models. Connecting people, objects, and systems to become more dynamic can change organizational processes and structures (Kagermann et. al, 2016). As external forces like Industry 4.0 make organizations explore new business models, companies with outdated infrastructures may not be ready to implement the new business models and the benefits that come with it. Evidently, this can result in a limited competitive advantage (Irvine, 2020).

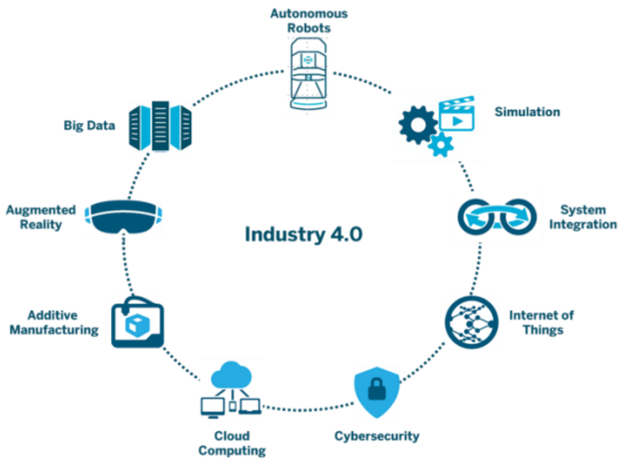

Figure 1: Industry 4.0 (Melanson, 2018)

It can be discussed that Industry 4.0 is solely old technologies combined and given a new name. This can cause issues when researching and educating about this concept (Kagermann et. al, 2016). However, Industry 4.0 provides an opportunity to modernize processes for supply chain and product innovation that results in new and complex business models (Irvine, 2020).

2.1.2 What are digitalization and digital transformation?

Digitalization is when you improve specific processes by leveraging digital technology and digitized data. It is used to enhance existing processes without changing or transforming them. As a result, digitalization increases productivity, efficiency and reduces costs. However, the action from a human-driven to a software-driven process will be characterized by people as a change (Gupta, 2020).

To implement digitalization in an organization, there has to be a foundation of digitization. Digitization can be defined as creating a digital representation of physical objects or attributes. This is the first step in the digital maturity model towards digital transformation. Specifically, it is about converting something non-digital into a digital representation (Gupta, 2020).

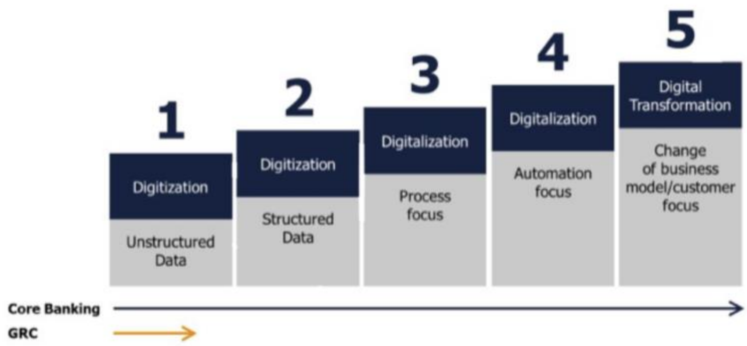

Figure 2: Digital Maturity Model (Lie-Bjelland, 2021)

The digitalization of an organization reaches a digital transformation when digital tools change the business model, value chain, and customer focus. Digital transformation is defined as; *"a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication and connectivity technologies"* (Vial, 2019)

Through the different stages, there is a continuous process of employing digital technologies and organizational changes to establish a digital culture. By doing so, the organization will provide better services, increase efficiency and gain a competitive advantage. However, obstacles that can prevent organizations from climbing up in the maturity model are human factors, cultural traditions, employees' resistance to change, and lack of knowledge, resources, and motivation. This is why it is increasingly important with flexible frameworks and models to better implement digitization, digitalization, and digital transformation. When companies successfully reach the point of digital transformation, it changes employees' jobs and processes, which again can result in a better return on assets and increased profit (Ivančić, 2019).

2.2 Change management

After explaining the concepts in detail, it is now time to look at change management in line with digital transformation. As mentioned above, digital transformation involves organizational changes, and the aspects of change management must therefore be considered and analyzed. *How can organizations manage to implement such a change successfully?* This questioning will be answered by focusing on perspectives in change management.

2.2.1 What is change management?

Change can be described as moving from a current state to a future state. By using an organizational perspective, change management is a framework that takes care of the people's side of change. It is used for leading the process from the current state into the desired future state. The journey starts by setting a clear target and figuring out which strategies to use. Furthermore, change management intends to support employees affected by the change so that they adapt effectively and adequately (Jägare et al., 2019).

The change process is complex (Jørgensen, 2008), and studies illustrate that companies with an achieved digital transformational change project success did not primarily focus on the technology itself, but the people that had to change (Dickerson, 2004). A successful change depends if you manage to get the people to understand and participate in the change by changing their behaviors, whether it is creating a new organization, designing innovative work practices, or leveraging new technologies (Jägare et al., 2019). Conversely, Hiatt explains change as; *"Organizations don't change, people within organizations change"* (Hiatt, 2006, p.1).

2.3 Four dimensions in change management

Armenakis and Bedeian spent nine years researching common dimensions that occur in all change efforts. Their research actions involve issues regarding intended change and outcomes addressed in organizational change efforts. Based on these, we can further explain change management and its effects. The four dimensions are:

1. *Contextual dimension - forces of change*
2. *Processual dimension - approaches to change*
3. *Criterion dimension- outcome and underlying perspectives on change*
4. *Content dimension - methods and success factors of change*

2.3.1 Contextual dimension - forces of change

Why does an organization need to change? This is often answered by looking at the forces of change. It can either be internal forces or external forces that influence the need for change, and due to our research question focusing on digital transformation, we will focus on external forces as an effect of urgency to change.

External forces can be defined as *"those changes that are part of an organization's general and business environment"*. External forces can usually be categorized into demographic, social, political, technology, and economic (Granite State College, 2021) Industry 4.0 is an external technological force that gives organizations an opportunity to change. Organizations that do not prioritize to adapt to these changes, like IoT, will be more prone to errors and unable to make accurate business decisions. In addition, another crucial external force due to digital transformation is changing consumer behavior (Irvine, 2020).

It is difficult to discuss change and digital transformation without mentioning the current pandemic Covid-19. The challenges that came with the pandemic have encouraged and forced organizations to increase their awareness of digital transformations. Lockdowns and limited face-to-face contacts moved new digital solutions. As a result, many organizations experienced being forced to adapt challenging digital tools and digital environments. However, Covid-19 has illustrated that through the use of digital platforms, organizations can implement beneficial, innovative, and digital products that they may not have discovered if it was not for the impacts of the virus. Consequently, change management has become one of the main priorities for organizations worldwide. Thus, organizations need to continuously change their business processes to maintain a competitive advantage and be prepared for unforeseen challenges (Hanelt, et al., 2020).

2.3.2 Processual dimension - approaches to change

"The only thing constant within organizations is the continual change of these organizations."

(Elving, 2005, p.129)

This is a widespread sentence and approach used in organizational and management literature. Organizational change is a well-known topic, but despite the research and attention, at least more than half of such programs either fail, do not reach desired results, or reach a deadlock (Elving, 2005). Furthermore, BCG research shows that 70% of digital transformations fail to achieve their objectives (Forth et al., 2020). Hence, success with digital transformation is rare.

This section explains what organizational change indicates in the context of digital transformation. Moreover, how this change most efficiently can be managed through the use of change management.

Change management models

The use of methodology and practical tools of change management can help tackle obstacles that arise during a digital transformation process and find a suitable approach. There are a variety of models, however, our theory is focused on a few of the process models of change management. Process models are frameworks including steps to show how individuals psychologically adapt and ultimately accept a change to get the most efficient way of transition to a new state and a positive shift in the employees.

Jägare et al. count on an agile organization with the ability to work continuously with innovation to succeed with digital transformation (Jägare et al., 2019). Similarly, Bohnsnack et al., discovered in their research that digital transformation is moving organizations to malleable organizational designs that enable continuous adaptation driven by digital business ecosystems. The research showed that change agents follow this new continuous paradigm when working with digital transformation. Digital transformation leads to a shift towards constant change, but the transition might be triggered and shaped by episodic bursts. Therefore, it can also be relevant to look at episodic change models, but not having a clear end-state and being equilibrium (Bohnsnack et al., 2020).

Kurt Lewin’s change management model follows the line of episodic change, and shows three stages of change to minimize resistance; *unfreezing, change, refreezing*. In regards to digital transformation, the idea of having a refreezing step is challenged and can culminate in a constant unfreezing state (Bohnsnack et al., 2020). However, since Bohsnack et al., analyze digital transformation as a continuous change (Bohnsnack et al., 2020), it fits into Weick and Quinn’s developed *freeze-rebalance-unfreeze* sequence inspired by Lewin’s model to use for continuous change (Weick & Quinn, 1999). This model is cyclical instead of step-by-step as the original model. Weick and Quinn explained it by stating *“change never starts, because it never stops”* (Weick & Quinn, 1999, p.381).

The first stage is freeze, consisting of using maps, schemas, and stories to make visible sequences and patterns. The second stage, rebalance, is to emergent change by resequencing patterns to eliminate obstacles. Rebalance uses the logic of attraction due to people changing to new positions because of being attracted or inspired by it. The stage focuses on making issues become opportunities. The last stage, unfreeze, allows improvising and learning, which leads to changes. The process aims to enrich dialogue and new identity (Weick & Quinn, 1999).

The original model by Lewin has also been criticized for being vague as to which actions, in particular, make change stick (Calegari et al., 2015). A model that wanted to address these actions was Dr. Kotter's eight-step change model, which was introduced in his book *Leading Change* in 1996, but updated in 2014 in his book *Accelerate* (Kotterinc, 2021). Kotter's updated model consists of the following steps:

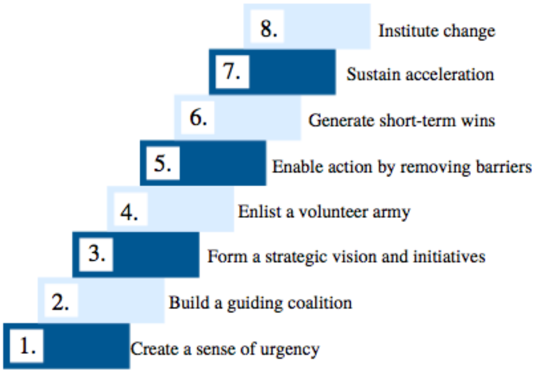

Figure 3: Kotter eight step change model (Kotterinc, 2021).

Step 1, creating urgency for change, means that it is essential to convince and communicate to employees why the change is needed for the organizations' survival. It is vital to communicate to employees that change is attainable without affecting their jobs negatively or destructively. Step two, building a guiding coalition, is finding respected employees that can guide, communicate and coordinate the change and its following activities. Step three, form a strategic vision and initiatives, focus on how the future will be and how to get there. Step four, enlist a volunteer army, has a focal point of creating common understanding and having employees moving in the same direction. Step five, enable action by removing barriers, focus on eliminating hierarchy and inefficient processes. This creates increased freedom for employees and the opportunity to initiate impact. Step six, generate short-term wins to track progress and also keep up the motivation and acceptance among employees by showing them. Step seven is to sustain acceleration and keep that moving forward. The last step, institute change, is to anchor the change in the values and culture of the organization (Kotterinc, 2021).

Challenges with Kotter's model have been noted by Calegari et al.'s research when in a real-life organizational change example, it was more sufficient to use the model as a continuous cycle, not as step-by-step. Furthermore, they criticize that the model lacks a description of which tactics are useful in order to influence individuals to comply with changes (Calegari et al., 2015).

Another famous process change management model is the ADKAR model created by Prosci. It was created after researching more than 900 organizations in a 10-year period. The model emphasizes understanding change using a bottom-up approach at an individual level, where the people behind the change and the goals are the main focus. This differs from the Lewin and Kotter models that use a top-bottom approach. ADKAR is an acronym for;

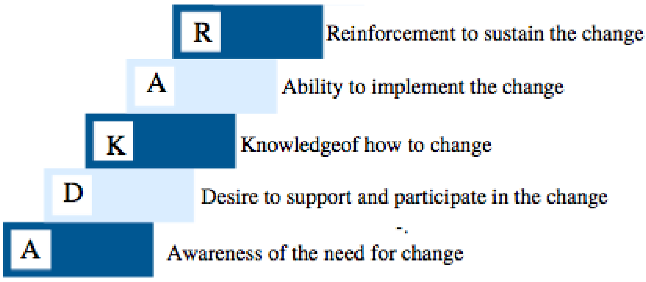

Figure 4: ADKAR model by Prosci (Hiatt, 2006, p.1)

The model consists of those five elements, and all aspects need to be gone through for a deliberate and effective change by an individual. The model can be used in different scenarios with different end goals. An example is to discover an employee’s resistance to change (Hiatt, 2006).

Ewenstein et al. criticize the Kotter and ADKAR models described above and believe they are stuck in a pre-digital era. Additionally, they state that strategic plans that stretch out for several years are a thing for the past, and competitive advantage will follow with the organizations that manage to set new priorities and implement new processes quicker than their competitors. Therefore, mastering rapid change is a critical competitive advantage (Ewenstein et al., 2015).

2.3.3 Criterion dimension: Outcome and underlying perspectives on change

An outcome that most commonly occurs in change efforts is the different attitudes towards change amongst employees. Thus, the authors see the need to explain the underlying perspectives on change that result in these different attitudes. Before discussing employees' attitudes, it is necessary to have an insight into the organizational culture during digital transformation.

Organizational culture

Organizational culture can be defined as the set of shared beliefs, values, and norms that influence the way members think, feel and behave (Tran, 2017). Consequently, culture will have an impact on employees' attitudes towards change. Vey et al., describes the increased significance of culture due to them having to radically and frequently revolutionize themselves to stay relevant. In many cases, the culture is not agile or flexible enough for the changes. As a result, there is increased pressure on an organization's norms and values, described as their DNA by Vey et al. (Vey et al., 2017).

Employees' attitude towards change

Monahan et al., describes the use of mental models and that underlying belief systems impact human behavior. This shows a different approach to understanding *why* employees' attitudes towards change might be problematic. The research shows how an employee's attitude can be formed if the psychological needs of autonomy, growth, and meaning are met. (Monahan et al., 2016). When planning the digital transformation, the employees' attitude toward change is important to consider. *How do you manage to understand these different perspectives and reactions towards change?*

Kübler-Ross five-stage model is used to understand the employees and which stages they might be in throughout organizational changes. This model will help gain information about a user's attitude towards change by analyzing which stage they are in (Critchley, 2012). The five stages are:

Figure 5: Kübler-Ross five stage model (Critchley, 2012).

If an employee is in denial, they are unwilling to accept the change. People act resistant to change and do not want to imagine that change is happening. When the employee realizes change is happening, they move to the next stage, which is anger. During the third stage, bargaining, employees will try to get the best solution for them by the circumstances, to avoid ending up in a worst-case scenario in their opinion. When the bargaining is not working, they might lose their hope and feel depressed. Symptoms of this would be low motivation and lack of excitement, as well as non-commitment. When employees eventually realize that resisting the change is useless, they accept it and start working toward it (Critchley, 2012).

Organizations that take these concerns in mind would easily eliminate them, and result in effective change management. An effective change includes the successful adoption of change by the employees. An organization’s function depends on its workforce, which is why an organization can only change if employees’ behavior changes correspondingly (Elving, 2005).

The model shows similarity to the readiness of change, which is the cognitive precursor to the behaviors of either resistance or support for change effort. Readiness of change is a continuum where there is resistance on one end and readiness for change. When employees are ready to accept and experience high feelings of readiness for change, the change process will become effective (Armenakis and Harris, 2002). When the employees go through these stages, it is critical to use a clear communication strategy and keep them informed of what is happening, to change their attitude towards accepting the stage and a high level of readiness for change.

As organizations are looking to digitize processes and take advantage of Industry 4.0 technology, it is crucial to focus on internal aspects in the organization. When an organization implements new technology, management usually focuses on the strategy and results, like increased efficiency. However, the employees that are impacted by this strategy are more often concerned about the negative consequences. Some of these consequences could be fear of being replaced, inability to perform given tasks, or changing everyday tasks. As a result, there is often a dip in performance during change (Irvine, 2020). This is illustrated in the Satir Change Model, which shows performance levels during the stages of change (Gill, 2011).

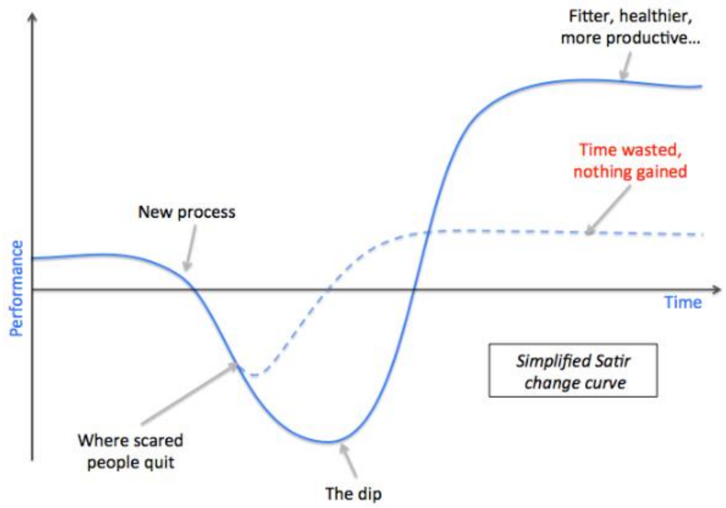

Figure 6: The Satir Change Model (Gill, 2011).

2.3.4 Content dimension - methods and success factors of change

This dimension addresses strategies and factors that can drive success in digital transformation mentioned by researchers. These insights will be useful in reflecting the previous dimensions mentioned and creating the linkages needed for further research in the qualitative interviews.

Key factors for success in managing organizational change

Monahan et al. explain that a common goal within organizational change is to increase efficiency and competitive advantage. However, focusing solely on these factors can provide a weaker result than also including human-behaviour elements, social factors and psychology (Monahan et al., 2016). A survey by McKinsey researched the most influential factors to succeed with transformation. The data was collected from participants that thought their organizations had successfully improved performance over time. Based on the collected information, McKinsey points out five key factors to succeed with digital transformation.

The first key is having competent and digital leaders in place, as 70% of management changed when new leaders with digital technology backgrounds started in the organization. Organizations with a chief digital officer (CDO) are 1.6 times more likely to have successful digital transformation (McKinsey, 2018). The second success factor is to build capabilities for the workforce of the future. This includes developing skills, digital capabilities, and how organizations facilitate change to succeed in digital change efforts (McKinsey, 2018).

Third key factor for achieving digital transformation is empowering people to work in new ways and adapt to new changes. This can be done by establishing a minimum one new way of working and giving employees a say on where digitization could and should be implemented. Employees that feel like their opinions are heard are 1,4 times more likely to have a successful transformation. Furthermore, challenging employees' old ways of working is crucial to get everyone on board (McKinsey, 2018). The fourth key factor to success is providing a digital upgrade to daily tools that can support the change process. The fifth and last success factor is communicating through traditional and digital methods. This will be highlighted further below under the subtitle *"Importance of communication before and during change",* due to the need for explaining this further as a crucial part of change (McKinsey, 2018).

In similarities to McKinsey, Ewenstein et al., believes that these five areas are most helpful when implementing effective change; just-in-time feedback, personalize experiences, sidestep hierarchy, build empathy, a feeling of community and shared purpose, and demonstrated progress (Ewenstein et al., 2015). However, with these specific critical factors to success, having an organization that works continuously with innovation and focuses on developing digital transformation is the overall strategy that leads to success. Employee skills, facilitated organizational culture and processes that support the strategy are vital elements for success (Jägare et al., 2019).

Importance of communication before and during change

One key element in the methods used for change management is communication. Communication is vital to implement an effective organizational change, and these are inextricably linked processes. In digital transformation, the changes consist of how the individual employees' tasks will change; therefore, communication of this information to the individuals is fundamental. Communication ought to be an integrative part of change efforts (Elving, 2005).

McKinsey, as described above, described communicating as a success factor. Communicating a change story within the organization can help employees better understand *where* the organization is heading, *what* the change is, and *why* the change is critical. Moreover, using clear communication to encourage a feeling of urgency often results in success. Crucial factors for implementing an effective communication strategy are communicating clearly throughout the transformations timeline and having understandable targets for KPI (key performance indicators) (McKinsey, 2018). Their study shows that organizations that follow this communication strategy are three times more likely to have a successful digital transformation (Boutetiére et al., 2018).

Communication both before and during the change can decrease or prevent change barriers, such as resistance to change. If employees are vaguely aware of the changes taking place, the ground for rumors and anxiety and finally resistance might occur (Klein, 1996). Low levels of resistance to change could result in a higher effectiveness of the change effort. Communication is accordingly a method that boosts and supports effectiveness (Elving, 2005).

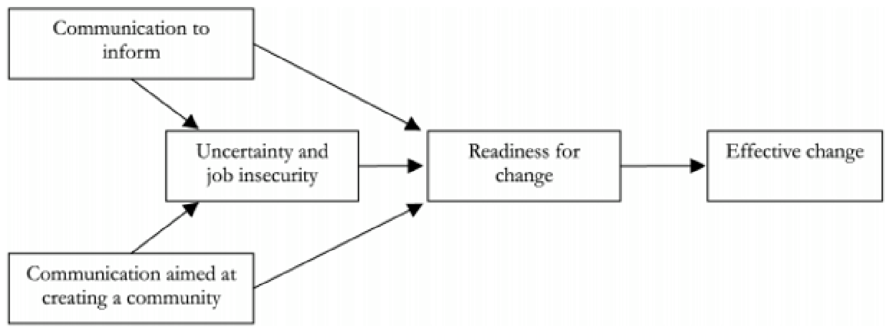

Figure 7: Conceptual model of communication during organizational change (Elving, 2005).

Wim J.L. Elving proposed a research model showing the function of communication during organizational change. One of the main purposes of using communication during change by the research would be to focus on the informative function of communication to gain effect on readiness for change, because increased uncertainty among employees will negatively affect the readiness for change. It would also be efficient to focus on using communication for creating a community (Elving, 2005).

3. Methodology

The methodology chapter will start with our research approach and explain how we conducted this thesis. We will provide an in-depth insight into our data collection and interview process and analyze this data. In this chapter, we will also explain our reason for choosing a methodology. Moreover, we will go deeper in our approach regarding obstacles, limitations, and critics of the chosen methodology.

3.1 The research process

According to Johannesen, you can categorize the research process into four phases: preparation, data collection, data analysis, and report. These four phases lay the foundation and structure of the research. Throughout the methodology chapter, there will be a thorough description and review of the first two phases; preparation and data collection. Furthermore, the last phases data analysis and report will be created based on the findings in the two first phases (Johannessen, 2011).

Figure 8: Research process (Johannessen, 2011)

3.2 Research approach

To conduct proper research, we started by choosing the appropriate research approach. There are three different research approaches: deductive, inductive, and abductive. Differences in the three approaches is how the empirical findings relate and are used with the theoretical framework. The abductive approach starts with considering facts, which give rise to a hypothesis that relates them to some other fact or role that will account for them. From there, you integrate the facts to a more general description (Svennevig, 2021). The abductive approach is mostly used when researching a subject that has been researched previously. Since we had a lot of insight into our research question from previous courses, we decided to use the abductive approach when conducting our research.

As we see, abduction starts with consideration of facts, that is, particular observations. These observations then give rise to a hypothesis that relates them to some other fact or rule which will account for them. This involves correlating and integrating the facts into a more general description, relating them to a wider context (Svennevig, 2021).

3.3 Collection of data

3.3.1 Research method

Research methods are defined as; *"the strategies, processes or techniques utilized in the collection of data or evidence for analysis in order to uncover new information or create better understanding of a topic"* (University of NewCastle, 2020). We can divide research methods into two main categories; quantitative and qualitative methods. Quantitative research is used when describing and resolving a problem or hypothesis by using numbers and numerical data. The data from quantitative research is usually formal and standardized based on a larger group of respondents. Conversely, quantitative research is based on words, feelings, emotions and non-numerical data (Business Research Methodology, 2021). Due to our interest in understanding the research questions, we decided a qualitative research method would be more suitable.

The qualitative data was collected from interviews with participants who gained great knowledge on digitalization and change management within their organization through trial and error. When deciding on a qualitative method, we had to be aware of some of the disadvantages it can bring, such as unreliability, subjectivity, and limited generalizability (Bhandari, 2020). Thus, it limits the number of views and opinions available to the researcher (Denscombe, 2017). However, the participants' insights, experiences, and reflections provided us with valuable and detailed data that was useful when discussing our research question. Choosing a qualitative research method and conducting seven interviews gave us the meaningful insight that we needed to provide a thorough and detailed analysis.

3.3.2 Research design

Different from research approach and method, research design is a systematic approach that a researcher uses to conduct and identify components and data that can result in a reasonable outcome. a scientific study. According to Yousaf, there are 4 main categories of research design; exploratory, descriptive, explanatory and evaluation research. When using a qualitative research method, all of the research design mentioned could have been utilized. However, since our research is focused on how digital transformation has affected organizations, the explorative design is most appropriate. Exploratory research is when researching a subject by answering questions like *"what"* or *"how"* (Yousaf, 2021). Utilizing an exploratory design provides a deeper understanding of how organizations react and adapt to digital transformation and the tools they use to implement it efficiently.

3.3.3 Selection and recruiting of participants

In order to find relevant participants for the research, the use of search with keywords such as; change manager, digital transformation and digitalization was used on Google and LinkedIn. As a result, we managed to make a list of possible candidates and organizations. From there, we narrowed down the list by looking for articles and research conducted by these organizations that showed characteristics of expertise. When contacting these organizations, we were referred to the most suitable employees in their opinion. We then pursued to schedule video interviews using Zoom and Teams. The table down below shows the information about participants we interviewed.

All of our participants wanted to remain anonymous, therefore we have sectioned them into participants by using numbers, and with relevant information that does not give away any sensitive and confidential personal and organizational details. To comply with the disclosure and protection of personal data, the interviews were deleted immediately after the transcription and analysis of this was managed. Also, there is no savings of any personal data from the interviews. Nor was there any recording of the personal information that was told by the participants, such as names, company or any other possible traceable information. The only thing recorded was opinions.

Participant ID	Role	Area of expertise	Experience	Country	Interview method	Length
P1	Consultant	Change management, digital transformation, innovation processes	20 years	USA	Online video	1 hour
P2	CEO	Business development, leadership	15 years	USA	Online video	1,5 hours
P3	Change manager	Change management, digitalization	7 years	England	Online video	1,5 hours
P4	Innovation manager	Innovation and business development, transformation	9 years	Denmark	Online video	1 hour
P5	Transformation manager	Change management, digitalization, digital transformation	10 years	Norway	Online video	1,5 hours
P6	CEO and partner	Change management, digital transformation, leadership, communication	17 years	Switzerland	Online video	1 hour
P7	Head of consulting	Leadership, project management, digital transformation, change management	15 years	Denmark	Online video	1 hour

Table 1: Information about the participants in the empirical research

We wanted to use the sampling technique "maximum variation", and therefore chose to interview participants that worked in different countries to avoid generalization (Alsaawi, 2004). Primarily, we interviewed eight participants. However, one of the participants was not used in any of the finished analyzes. This was because the participant worked in the same organization as one of the other participants, only in different countries. These two had vastly similar opinions, therefore we removed one from the empirical data to save time on transcription and avoid generalization. Nevertheless, it was an interesting insight for us to have the interview, so that we could see that one organization had succeeded with integrating similar knowledge across countries.

Two criterias relating to choosing the amount of participants is sufficiency and saturation. Adequacy can be felt by the interviewer if they have already had insight on the research theme. The other criterion regarding saturation emphasizes gaining similar information in an interview as from prior interviews. Focusing on the two criterias mentioned can be more accurate then deciding on a particular number in advance (Alsaawi, 2004). The number of participants used in this research was therefore based on these two criterias.

3.4 Semi-structured interview

When preparing the interviews, it is crucial to have a clear idea of whether to use a structured, unstructured, or semi-structured interview (Denscombe, 2017). Planning the type of interview provided us with a solid plan that made the interview more successful and efficient. We knew in advance that our participants had a variety of experiences and knowledge. Additionally, we had participants that represented different countries and cultures. Based on this, we decided to use a semi-structured interview which is when we prepare a few pre-determined questions, and let the rest of the questions unplanned (Pollock, 2020).

We used an interview guide to make sure that our research question was covered, while still letting the conversation go in its natural direction. Having the opportunity to spontaneously explore topics relevant to that particular candidate was important in order to get valuable insight. However, the interview guide helped us keep the conversation on the right track and maintain the interview quality. A negative consequence of semi-structured interviews is that they are less objective and harder to defend (Pollock, 2020). However, even though some of the interviews took different directions, similarities in the answers reinforced our research questions and provided valuable insight.

3.5 Data reduction, coding and transcription

Transcribing is to convert speech from interview to text, word by word. The purpose of transcribing interviews is to better conduct a thorough analysis. According to Streefkerk, you use these five steps to transcribe; choose a preferred transcription method, transcribe the audio, add speaker designation and time stamps, clarify the transcript and finally proofread.

Before the interviews, recording was approved by the participants using a consent form from NSD (Norwegian Center for Research Data). Thus, we had our full attention to the participants and the questions. Right after the interview, we started transcribing while we had the interview fresh in our memory. This provided us with a good foundation for the analysis. Sensitive or confidential information about the participants or their organizations was not recorded, only the opinions on the topic to respectfully avoid storing any traceable data in our computers. To follow the GDPR laws, the sound recording was approved by NSD. The answers on topics that were used to write the transcript, will be deleted immediately after submitting the research. In result the transcript does not consist of any personal data or sensitive information, so there is no possibility of identifying a participant at any time of the data collection.

Having a semi-structured interview made it more challenging to transcript and analyze in contrast to other interview methods. According to Denscombe, semi-structured interviews result in data that is not pre-coded and data that is rather open. This makes transcribing, coding, and analyzing the data an extensive task after collecting data (Denscombe, 2017). However, having the interview guide as the foundation made it easier to draw comparisons and differences between the different data. Individual questions from each interview also gave us a broader perception and a deeper understanding which was valuable in the analysis. During the analysis we focused on discussing relevance and decoding the data, while still conducting the suitable quotes in the right contexts.

Coding and categorizing in themes are the main techniques for analyzing the transcripts (Streefkerk, 2019), and there are several factors to take in consideration when identifying such themes. Frequent repetition of a topic in one transcript or multiple transcripts, is not enough to divide it into a theme. Relevance to the research in question needs to be in place (Bell et al., 2019). When coding the data, structuring it by creating themes saves time and simplifies for further analysis. Theoretically fertile dimensions are groups of themes structured in order to make theoretical sense, and can be helpful for further developing and understanding of the research field (Bell et al., 2019).

The coding for the collected data in this research has resulted in four themes that contain common features, identical to those used in the theoretical chapter. We first identified the concepts and reflected on how they could relate to one another. The reflection aims to understand the continuities between topics, how they are connected, and fit the overall view (Bell et al., 2019).

The aim is to reveal components related to change management in digital transformation. In combination with the theories and secondary data discussed in the theoretical framework chapter, we have chosen to use the themes when partitioning the analysis part.

3.6 Reflection and limitations based on quality criterias

To ensure the quality of the research and control if the requirements for further research are met, we have used these terms for measuring instruments by Guba and Lincoln to evaluate; reliability, credibility, transferability, and objectively. (Johannessen, 2011)

3.6.1 Reliability

Reliability describes how degree the empirical study results are trustworthy (Gripsrud et al., 2018). Using a semi-structured interview makes it harder to achieve consistency, as opposed to using other interview methods. The insight and data are to an extent affected by the specific context and the specific participant.

It was essential to not ask leading questions, because this can affect the participant's answers and the overall results of the research. Our interview guide was used in all interviews, and the questions were asked in the particular order, which strengthened the reliability. However, a qualitative interview analysis will be different depending on who interprets it. In order to strengthen the reliability, we have consistently tried to present the context and the procedure in detail.

For further research on this subject, a wider and extensive participant selection would result in a higher preferable reliability.

3.6.2 Credibility (internal validity)

Validity portrays how great the measurement of what is intended to measure is (Gripsrud et al., 2018). In qualitative research the internal validity shows in which degree the researchers approach and findings reflect the purpose of the study (Johannessen, 2011).

All of our interviews were conducted through live video meetings. Denscombe argues that semi-structured interviews should be conducted face-to-face because direct contact means that the data can be checked for accuracy and relevance as they are collected (Denscombe, 2017). However, online video meetings were the best available alternative due to geographical distances and the ongoing pandemic. A semi-structured interview where we did not follow a rigid list of questions, was very beneficial for our interviews. We were able to create a comfortable atmosphere that felt like a face to face conversation. Moreover, we also let the participants decide the interview platforms to make them feel more comfortable during the interview (Denscombe, 2017).

The majority of participants used can be classified as experts in digital transformation and change management. This strengthens the validity both regarding our participants and data collection. However, data collection in qualitative research will most likely consist of a few method errors. Additionally, it will also include some selection bias due to practical circumstances, which impairs validity and representation.

3.6.3 Transferability (external validity)

External validity represents whether results from a research project can be transferred to other comparable areas (Johannessen, 2011). To ensure anonymity for the participants the names of organizations cannot be disclosed. However, the expertise they have in digital transformation and change management is transferable to organizations in most sorts of industries. This is due to the increased use of technology globally in business. Even though an organization is at a lower level of digital maturity than our participant's organization, the terms and interpretations can be transferable. The results of the research are useful for industries with similar purposes.

3.6.4 Objectively

Objectively implies that findings should not result from a researcher's subjective attitudes, but as a result of the research (Johannessen, 2011). To maintain a high level of objectivity the decisions throughout the research process are explained in detail. In that way the reader can easily evaluate. Both claims and conclusions are firmly discussed, and are anchored in the discoveries by the participants. The discoveries and assertions are thoroughly supported or criticized by theories and literature on the same topics. In the discussion and analysis, emphasis is placed on objectivity, even though biases occur. The interview guide, the conduct of the interviews, the analysis and the conclusion can have a small scale of subjectivity, which will weaken the objectivity.

4. Results and discussion analysis

In this chapter the results of the empirical data accumulated through interviews are presented. Empirical data was first sectioned into themes accumulated related to the four dimensions by Armenakis and Bedeian previously used in the theoretical framework chapter and the research questions through decoding. The four dimensions were;

1. *Contextual dimension - forces of change*
2. *Processual dimension - approaches to change*
3. *Criterion dimension- outcome and underlying perspectives on change*
4. *Content dimension - methods and success factors of change*

4.1 Contextual dimension - forces of change

All the participants agreed that in order to start a change process, you need to understand the forces to change. Thus, discussing external forces to change will provide an understanding of how external forces affect employees and their everyday work life. Consequently, how this affects their attitudes towards change in the digital transformation journey.

Covid-19 has been an external force that has consequently affected every organization globally. P1 reflected on this when stating *"Almost no change happens overnight, but the biggest digital transformation to do so was Covid-19".* In all seven of the interviews, the topic of digital transformation was not discussed without bringing up the pandemic. It is clear that a consequence of Covid-19 was that many organizations felt forced to adapt to digital tools and resources.

Moreover, P1 said, *"being forced to do something different was maybe not too strategic, but companies just had to adapt"*. P6 agreed to this *"I would say that sometimes organizations need a kick in the butt. An external stimulus for them to say, now we really have to do this. Sometimes, this external stimulus is very powerful for employees to change more fundamentally in a shorter period of time"*. The sense of urgency that Covid-19 gave organizations is also described in the first step in Kotter's eight step process for leading change; *creating a sense of urgency* (Calegari et al., 2015). Hanelt agrees by saying that innovative and digital products may have never been discovered if not for the impacts of the pandemic (Hanelt, et al., 2020). Compared to pre-Covid-19, the participants agreed that employees and managers have adapted to digital transformation faster and with less resistance. P3 concluded that *"external forces are the only thing that results in change."*

P4 states *"External forces that drive change are the world's reminder that organizations need to open up their eyes and increase their awareness"*.
The statement is supported by the first stage in the ADKAR model *"awareness of the need for change"*. Before any types of change can be implemented, organizations first need to gain awareness (Hiatt, 2006, p.1.).

Industry 4.0, as we discussed in the theoretical framework, is one of the most influential external forces that affects organizations today. Industry 4.0 has brought a lot of new technologies like big data, IoT, cloud computing and robot technology to the surface. P6 and P7 agree that companies that are able to implement these in the right way, are more likely to avoid failure in change. Kagermann discusses if Industry 4.0 is old technologies combined together and given a new name (Kagermann et. al, 2016). However, P2 disagrees when saying that even though some of the new technologies have been around for decades already *"it is the power that all of the new technologies in Industry 4.0 brings together that frightens me"*. Irvine also insists that organizations that do not prioritize these changes are more vulnerable for making the wrong business decisions (Irvine, 2020).

As organizations have to digitize processes due to Industry 4.0, it's crucial to focus on the internal processes in the organization (Irvine, 2020). P5 agrees and means that: *"no matter how much pressure my organization gets from external forces, being aware of and implementing change always boils down to every single individual in the organization"*. However, P1 and P3 mentioned that the initiatives and willingness to change depends on the management in order for the individuals to change. This sets requirements for competent digital management that understand *how* organizations are affected by these external forces and how to facilitate and drive digital transformation. McKinsey's research supports this by proving that organizations with a chief digital officer are 1.6 times more likely to have successful digital transformation (Mckinsey, 2018). Internal processes and the importance of individuals will be further analyzed and discussed in the third dimension of our analysis: criterion dimensions.

4.2 Processual dimension - approaches to change

This dimension includes the empirical data showing participants' approaches to change to provide us with a deeper understanding of the process of change management. Their opinions provided valuable insights and tangible activities compared to the traditional theoretical models.

4.2.1 Change as an ongoing process that drives new ways of working

Change is a complex concept with many contributing factors. In the theoretical framework we mentioned this following famous notion on change: *"The only thing constant within organisations is the continual change of these organisations"* (Elving, 2005, p.129) P6 refers to this notion when talking about change; *"This notion that constant change is the only thing that is constant, I think it's very true".* All the participants agree that there is an increased need for change in organizations that is going to continue to grow more rapidly and unpredictable in the future. P4 believes that change is an ongoing process, and that we need to change our old mindsets and perspectives on change to facilitate the constant digital transformation journey for employees. P1 further explains this: *"In many digital transformations I have consulted the organization still uses old methods and ways of working when implementing new tools. The lack of needed competencies and skills can result in reduced adoption."* The inclusion of developing skills to succeed in digital change is also recognized in McKinsey's research (McKinsey, 2018).

4.2.2 The use of change management attributes in digital transformation

All of our participants mentioned change management as an important part of gaining success with digital transformation. For example, P1 said *"Digital transformation is all about using change management, because digital transformation means constantly changing"*. P2 mentions that digital transformation can create competitive advantages by understanding how important the role of change management is. Hence, new technologies have the best prerequisites. Further, P2 explains the leading way to implement sustained change on employees, processes and technology is to use change management.

None of the participants work according to the models explained in the theoretical framework. Every participant understood the models, but models were not implemented in their change management strategies for digital transformation. When analyzing opinions by the participants we see similarities in attributes used when approaching change. The participants do not describe a step-by-step process with an end-stage such as the outlay of Kotter's eight step change model and Lewin's original three stages of change. Thus, the participants' opinions are similar to Bohnsnack et al.'s research on digital transformation, leading to continuous change (Bohnsnack et al., 2020).

Ewenstein et al. are critical towards the Kotter and ADKAR models because they are stuck in a pre digital era whereas strategic plans are planned for years in advance (Ewenstein et al., 2015). P4 disagrees and believes that change needs a strategic plan to be followed through. Moreover, trying to adapt to every change process is going to result in failure. Thus, the organization has a stronger position if it sticks to the plan and has a long term perspective. However, six of the participants agree with Ewenstein et al.'s approach. A common argument amongst the participants is that organisations need to quickly adapt to new changes. Whenever you have implemented a new change, there is always a new opportunity around the corner. This is supported by Ewenstein et al.'s approach that mastering rapid change is a critical competitive advantage (Ewenstein et al., 2015).

Kotter's model believes forming a strategic vision happens in the third step, however the participants mention this as one of the first things being covered (Calegari et al., 2015). *"Having a clear vision and purpose is vital, and the first thing the management should decide"*, P5 states. However, the first step of Kotter's model, creating a sense of urgency, is similar to some of their opinions on how to approach change (Calegari et al., 2015). P3 and P6 mentioned questions like *"Why change when we are already doing successfully?", "Why is this necessary?"* arises when first introducing a digital transformation, and how important it is for them to address this. Furthermore, this is also similar to the awareness of the need for change in the ADKAR model.

P6 and P7 mentioned the ADKAR model used as a supporting tool and as an inspiration. According to Hiatt, the five elements of the ADKAR models need to be followed in order to obtain effective change (Hiatt, 2006). P1 and P3 stated that due to digital transformation, there is a lack of knowledge on change from an educational perspective. Thus, employees might feel like they are not competent enough to make such adjustments.

Moreover, lack of knowledge can increase uncertainty, which leads to higher resistance to change for employees. The third phase in the ADKAR model; *knowledge of how to change* addresses these issues and is therefore an important factor to include in a change model. Resistance amongst employees is included in the second phase; *desire to support and participate in change*. According to the majority of participants, the amount of resistance and desire to support change is a consequence of the amount of knowledge on how to change. Consequently, their opinions question the order of the phases in the ADKAR model.

The fourth step in Kotter's model, *"Enlist a volunteer army"* (Kotterinc, 2021), emphasises the need of employees as drivers for change (Calegari et al., 2015). These chosen individuals help to share knowledge across the organization. Many of the participants mention that such ambassadors have even more advantages, such as encouraging employees, raising knowledge, and mitigating risk of resistance. The majority of the cases when ambassadors have been used led to successful experiences.

4.3 Criterion dimension- outcome and underlying perspectives on change

In this theme we will present the insight our participants had on outcomes and underlying perspectives on change. The participants undoubtedly hold contrasting perspectives and views on this subject. It became clear how employees and divisions within an organization will perceive change differently.

4.3.1 Perspectives on advantages and disadvantages in digital transformation

Six of the participants agreed that digital transformation and its impact in organizations come with both advantages and disadvantages. In contrast, P6 had a slightly different approach; *"For me it is not a question of an advantage or disadvantage, it is a fact, it is a reality. If you decide you don't want to participate, at one point you will be left behind"*. One of the disadvantages mentioned by P7 is that the impact of change will always be a concern for employees. P3, P4 and P6 had similar opinions regarding the fact that some jobs will be more affected, and for those employees the impact is much more severe, because it means they need to completely reinvent themselves, reskill and retrain, and they may not be in a position to do so.

P2 has tried to implement change in the organization for a decade, and thinks the combination of "*employees with high seniority, inflexible structures and organizational culture with lack of willingness to change"* are the main reasons for its failure. P2 has used a lot of resources and time to try and implement change in the organization. Conversely, P3 works is a relatively new organization that has implemented change management from the beginning. The participants all expressed that awareness of which employees were affected by the change and how, is vital for implementing efficient change. P4's opinion reflects this in a slightly different matter by briefly explaining: *"digital transformation in organizations will only be beneficial if you do it the right way"*.

4.3.2 Perspectives on employees attitude towards change

Throughout the interviews, every participant brought up employees' attitude towards change as a key factor in change management. P7 shared frustration for employees not appreciating new features. There will be a lot of reasons or excuses not to implement new technology. Moreover, P7 thinks that *"it falls down to simply people needing to feel that it makes sense."* P3 shares the frustration after struggling with getting employees to implement changes for years. Consequently, a lot of time and resources were used to change the mindset of the employees. However, they have not yet succeeded. P3 experience is illustrated in the Satir change model. When implementing new processes, there is a chance that *scared people quit* before *the dip*. As a result, it changes the employees attitude towards change which can result in *time wasted, nothing gained* (Gill, 2011)

4.3.3 Perspectives on organizational cultures influence on employees

P6 described a common understanding amongst the participants: *"understanding your company culture is one aspect"*. Moreover, some of the participants described the value employees bring to the culture, by mentioning factors such as knowledge, experience and motivation. P2 states that these factors also affect the motivation or resistance to change. Vey et al., describes the increased significance of culture as a result of them having to radically and frequently revolutionize themselves to stay relevant. In many cases the culture is not agile or flexible enough for the changes. As a result, there is increased pressure on an organization's norms and values, described as their DNA (Vey et al., 2017). In combination with the participants' opinions on culture, it shows how this can affect the underlying perspectives on change.

4.3.4 Outcome of employees resistance to change

P7 disagrees, and thinks resistance amongst employees is inevitable. *"A rule of thumb is to always expect resistance"*. This is supported by Kübler-Ross five stage model used to understand employees, where he describes 4 stages of emotions before acceptance of change; *denial, anger, bargaining and* *depressions*. Symptoms described as a result of these stages are low motivation, excitement, and non-commitment (Elving, 2005). These consequences are similar to the effects of the scared people quit phase in the Satir change model. In contrast to the outcome of resistance being *time wasted, nothing changes* in the Satir change model (Gill, 2011) , Kübler-Ross describes that employees realize that resistance is useless, accept it, and start working towards it (Elving, 2005). However, if employees manage to work through the change from the beginning, the Satir change model describes that performance will increase and you will obtain "*fitter, healthier and more productive employees"* (Gill, 2011).

P2 describes a similar scenario where employees went from strong resistance to change, to realizing that the only way was to accept it and work towards it. This changed the whole organizational mindset and increased efficiency. P6 believes that change starts with every employee. P3 explained an experience, similar to P2 mentioned above, but with an example from Covid-19: *"When Covid-19 first came in March the employees were frustrated and shocked, but they quickly realized how this had no positive outcomes for the company, nor themselves. We then saw a shift in mindsets, and suddenly the whole organization worked towards the change together. We have never experienced that kind of quick adoption to new technology before, and the outcome was outstanding"*. These opinions are similar to Elving's approach to the theme. Elving states that an organization can only change if employees' behavior changes correspondingly (Elving, 2005).

Opposite to the phases in traditional models, which focus on a top-bottom approach where the management sees change and needs to understand how to implement it further down the organization, several of the participants prioritize the human perspective and psychological needs in digital transformation. The approach aims to result in better implementation of change. *"In our previous projects we have discovered that giving the employees an experience, instead of just telling them what to do, has been effective and resulted in decreased resistance to change"*, P1 explains. P2 has a similar opinion by mentioning the importance of employees' psychological needs, which Monahan et al. also mentioned as essential factors in their research (Monahan et al., 2016).

P6 believes that change starts with every employee having an emotional level of commitment to the change. Only having a rational level of understanding creates a bigger chance of creating resistance. P6 opinions are also somewhat supported by Monahan et al., who believe that the use of mental models and underlying belief systems impact human behaviour and attitudes towards digital transformation. understanding *why* employees' attitude towards change might be problematic (Monahan et al., 2016).

4.4 Content dimension - methods and success factors of change

Lastly, insight in internal processes and key success factors in the organization will be discussed.

4.4.1 Communication methods

Multiple researchers focused on how communication methods are an essential success factor of change. Elving says that: *"Communication ought to be an integrative part of change efforts"* (Elving, 2005). The participants mentioned communication strategies, and how essential the use of communication is for success. *"It is important to understand employees and their different behaviours. Individuals change at different paces, and grasp change in different ways. Thus, giving out different information to each individual is essential because they are at different stages in the change"*, P5 explained. Multiple participants also explain that in order to get employees to move in the same direction, having a clear vision and direction is crucial to communicate properly. P1 says: *"The organization needs to rely on change management, and use a proactive and continuous form of communication throughout digital transformation"*.

The need for just-in-time feedback and focus on listening is also mentioned by all of the participants as a tool, and has been reviewed as helpful by their employees . *"If you don't listen, how can you know what the participants are feeling towards the change? How would the managers be able to know if someone is frustrated and confused? The managers need to listen closely to feedback, and not just do all the talking. ",* P3 says. P4 also mentions*: "Managers need to be proactive in searching for feedback throughout the entire change process; there is no point in asking employers for feedback when the implementation is almost over."* P4 continued explaining using an example from a previous transformation process:

"We thought the process had gone smoothly, until we asked one of the employees what he thought. He said he actually did not understand a single thing about the new processes, and had just improvised the whole time. This could be prevented if the feedback had come in the beginning of the process instead.".

P5 emphasizes the importance of clear communication *"As well as preparing for change, you want to decrease chances of low adoption amongst employers. Therefore, making adoption and learning plans, as well as using clear communication is extremely valuable"*. The participants' opinions agree with the fifth key factor by McKinsey, which is based on the importance of clear communication. McKinsey emphasized the importance of having understandable KPI's and ways of tracking progress in a communication strategy. Ewenstein et al. agrees by believing that demonstrating progress is a key factor to effective change (Ewenstein et al., 2015). Moreover, McKinsey states that communicating a change story can help employees better understand *where* the organization is heading, *what* the change is, and *why* it is critical (McKinsey, 2018). P6 also adds the importance of repeat communication and messages continuously: *"There is a saying; when tasting new food, you need to try it 7 times before you can say whether you like it or not. With change it is the same thing, you need to tell people all over again."*

4.4.2 The importance of empowerment and individual learning

The third key factor for success based on McKinsey's research is to empower people to work in new ways and adapt to new changes. P7 emphasized the importance of this factor when believing that *"more focus on empowerment is the way to go for every organization"*. Moreover, P2, P3, P6 and P7 agree that a low hierarchical culture and empowering input managers is crucial to successfully implement change. This is also supported by Ewenstein et al., who votes for sidestepping hierarchy, building empathy and creating a community with a shared purpose is crucial for success. (Ewenstein et al., 2015). The area that focuses on community and shared purpose is similar to Elving's conceptual model, which shows the communication during a change and focuses on creating a community. *"In my experience, showing the employees the progression along the way helps* *employees' motivation, and create better adoption of the change"*, P2 explains. This can decrease the uncertainty among employees, which in Elving's research will gain effect on readiness for change.

Empowering employees enriches dialogue and forms identity, which is a part of the *unfreeze stage* in Weick and Quinn's *freeze-rebalance-unfreeze* sequence inspired by Lewin. The step includes opportunities for improvising and learning, which leads to changes (Weick & Quinn, 1999). P3 stresses the importance of empowerment from the hiring process of new employees, and means that by doing so, the whole change process is more efficient. However, empowering employees as a starting step is not included in any of the theoretical frameworks discussed in our research.

P1 *mentioned "to enable change, every single employee needs to understand how to use the digital tools and processes provided for them"* This is highlighted as the fourth factor of successful change (McKinsey, 2018). P1 further explains that: *"When we implemented the new Cloud-computing system we had to adapt the implementation to individual paces of speed based on previous knowledge and skills. Implementing a learning plan as a support system for employees decreased uncertainty and resistance towards the Cloud".* P5 supports this by explaining a similar experience with implementing a new intranet where they as management learned the lesson of: *"Making employees learn similar things as a group, does not always have the best outcome. Personalizing the learning experience is crucial for å smooth process"*. This is similar to Ewenstein et al.' s approach who believes that personalized experiences is one of the most helpful factors to effective change (Ewenstein et al., 2015)

Ewenstein et al., believe the most helpful areas to effective change are: just-in-time feedback, sidestep hierarchy, build empathy, a feeling of community and shared purpose and demonstrated progress. The area that focuses on community and shared purpose is similar to Elving's conceptual model, which shows the communication during a change and focuses on creating a community. *"In my experience, showing the employees the progression along the way helps employees' motivation, and create better adoption of the change"*, P2 explains.

This can decrease the uncertainty among employees, which in Elving's research will gain effect on readiness for change.

5. Conclusion and recommendation

Following Armenakis and Bedeian´s four dimensions through the theory and analysis has provided a deep understanding of change management´s importance throughout the whole digital transformation journey. Based on the findings from the theory and the new insights gained through qualitative interviews, the authors have created a continuous model that presents the most crucial factors to consider in digital transformation. This is due to notions made by both researchers and participants on viewing digital transformation as a continuous process that never ends. The model includes the four phases: *prepare for change, craft a flexible plan for change, implement and analyze and review.*

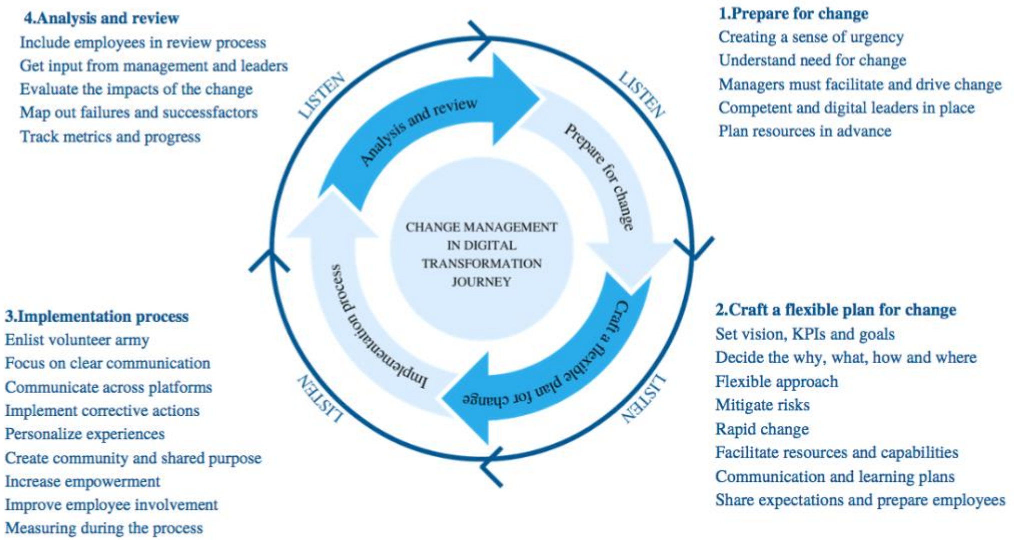

Figure 9: Change management in digital transformation journey

The statement by Weick & Quinn; *"Change never starts, because it never stops",* fits the digital transformation journey and the outcome of the research. Participants mentioned no use of traditional change management models, however the attributes used to manage change discovered in the empirical data show similarities to some of the points in each model. Overall, most participants weighed the key points mentioned in the model above when having success in digital transformation journey. Based on the research conducted in the thesis, the model can be used as a recommended tool in change management for digital transformation.

The research has provided knowledge that every organization needs a tailored strategy and that personalized experience and individual communication is vital for employees. Thus, one approach to all is not applicable.

The importance of focusing on a human perspective, as opposed to only new technology, has been repeated both in the theoretical and qualitative interviews. Thus, it is the most significant aspect in change management. Not getting employees on board in digital transformation, will end in adoption failure and resistance towards change. Opposite to the traditional change management models, the participants have realized the importance of human-element and employees´ psychological needs in the use of change management. The communication and approaches they use are built upon these assumptions and have received better results. The resistance to change has decreased, and readiness to change has increased. In result, the key points in the model above present actions involving the human-element to a high extent.

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