



Department of Economics and IT
Division of Informatics

Challenges of IT Governance in a Swedish healthcare organization

**- A qualitative study on the impact of culture on digital
transformation**

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Preface

It's hard to believe that I'm nearing the end of my thesis and it's almost complete. In October 2022, I had already decided to work with the digital transformation team at VGR (Region Västra Götaland) on my thesis. After a long period, I have finally found a way to express my passion for digitalization in healthcare. The journey has been both challenging and educational but has also given me valuable knowledge that I can use in my future career.

I want to express my gratitude to University West, where I had the opportunity to enroll in the IT and Business Development master's program and enhance my knowledge. The program's amazing instructors, particularly Zakarias Mortensen, who encouraged my interest in digital transformation in healthcare and provided me with valuable guidance, deserve special thanks. I am also grateful to my wonderful supervisor, Helena Vallo Hult, who has been a tremendous help throughout my thesis. Moreover, I appreciate the cooperation of those involved in the implementation project at VGR and those who kindly agreed to participate in my research. I hope that my findings will benefit VGR, and it is all thanks to your contributions.

Finally, I would like to thank you for this year in the master's Programme in IT and Business Development and wish all my fellow students the best of luck!

Mimmi Purmonen
Gothenburg august 2023

Abstract

Digital transformation has revolutionized public organizations, posing significant challenges in terms of adaptation. These challenges necessitate the need for revised working methods, processes, and procedures and streamlined integration of digital technologies and novel systems. However, adjusting daily habits, established procedures, and operational methods is often perceived as demanding and can provoke a reluctance to embrace change. This study aimed to explore whether factors within the organizational culture in a Swedish healthcare organization create a gap between top managers, middle managers, and employees in the digital transformation process. The purpose of the study was also to investigate how IT Governance and the IT Governance framework COBIT 2019 can support digital transformation.

To investigate this topic, a qualitative approach was employed, utilizing unstructured semi-structured interviews that encourage participants to freely discuss the matters at hand. The ten participants in the study all have a role in either implementing or developing digitalization initiatives in the organization. The findings indicate that numerous factors hinder the organization's digital transformation process, impeding its ability to obtain the benefits of digitalization. The factors identified in the empirical data align with the IT governance framework, highlighting the importance of engagement, prioritization of time and resources, unclear strategies, bureaucracy and legal aspects, and access to the right information. Specifically, communication and dialogue pose significant challenges within the organizational culture on all levels, from management to employees in the organization.

In sum, the study confirms a gap exists between top managers, middle managers, and healthcare professionals regarding how to achieve successful digital transformation. Based on the results, the study concludes that organizational culture, especially communication and dialogue, influences digital transformation and that IT governance mechanisms, with COBIT 2019 as a control framework, can act as a bridge in the digital transformation processes.

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Definitions and concepts

IT governance (ITG): a set of decision-making structures, processes, and relational mechanisms that support organizations to align their IT with business goals. The principles of IT governance are leadership, culture creation, strategy and innovation, organizational structure, processes, and architecture. IT Governance can be considered an enabler to improve efficiency with new routines and ways of working as a result.

COBIT 2019: Control Objectives for Information and Related Technology (COBIT), a process-based IT governance framework that will clearly describe the practicalities of how organizations should manage information and digital technologies.

Digitization is the process of converting analog data in digital storage into electronic analog structures in work processes.

Digitalization is when organizational, procedural, and cultural changes take place in the interaction between employees, citizens, and government with new organizational models as outputs.

Digital transformation is the incorporation of digital technologies into an organization, to fully transform the organization.

Strategy: Method for achieving specific objectives

Process: A set of activities in an organization or business to meet a customer's need.

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1. Introduction

The study begins with an introduction that covers the background information that led to the problem being studied. This is followed by the formulation of the study's purpose, which is supported by prior research to provide a clearer understanding of the research goals.

Studying the effects of digitalization on organizations and individuals is a captivating and important area of research, as it will undoubtedly impact all of us. Within the realm of informatics, this topic holds significance as it explores how information is used for communication and forms the basis of system development (Västkom, 2022). The merging of people and technology creates social contexts that influence our understanding of the possibilities and limitations of technology. Therefore, informatics plays a crucial role in shaping and creating our future (Dahlbom, 1996).

Iveroth and Magnusson (2023) conclude that digital capability and digital legacy are the two primary factors that affect an organization's ability to benefit from digitalization. They outline these factors as six key steps: efficiency, innovation, balancing, organization, users, and technology (Iveroth and Magnusson 2023). Embracing the era of digitalization, organizations are faced with a multitude of new possibilities for engagement (Jonathan et. al., 2021). However, the capacity to acclimate to this changing new era is contingent upon individual perspectives and experiences (Cruz-Cárdenas et al., 2018). Consequently, this variance in adaptation can give rise to challenges and tensions both within and beyond the confines of the organization (Jonathan et. al., 2021).

Some of the key values in the organizational culture for digital transformation are orientation toward the outside, prioritization of delegation over control, trust, willingness to take risks, tolerance for failure, emphasis on speed and action, and willingness to learn (Cruz-Cárdenas et al., 2018). The way IT management operates in terms of efficiency and productivity has been transformed by digitalization (Cárdenas et al., 2018). However, this transformation does not always lead to the intended outcome and instead creates two opposing viewpoints (Iveroth, Lindvall, & Magnusson, 2018). One perspective emphasizes the importance of reducing business costs, while the other focuses on the significance of activities that generate higher revenues (Iveroth, Lindvall, & Magnusson, 2018).

"It is difficult to change ways of working and bring in new thinking in large organizations, even if there are fantastic islands of knowledge within the organization. But to achieve real change for a robust

healthcare system in the future, we need to use digital technology to find new ways of working." Ann-Sofie Lodin, Regional director

This quote, stated by the regional director of Region Västra Götaland (VGR), is an example of a vision of digitalization. It emphasizes digitalization as a solution to meet future challenges, particularly the rising costs, limited access, and quality of care in the public healthcare sectors. Additionally, it underscores the significance of digitalization as a transformation in work methodologies, rather than simply the implementation of new technologies. However, even though being taught about the need for digital transformation, many organizations struggle to turn it into a reality that reaches all levels of the company. This leads to employees taking a skeptical approach to change, which requires a long process to convince them of the benefits of digital transformation for the organization (Cruz-Cárdenas et al., 2018).

1.1 IT Governance and challenges with digital transformation in healthcare

Digital transformation indicates the incorporation of digital technologies into an organization, with the primary goal of fully transforming the organization (Cruz-Cárdenas et al., 2022). The integration of technology in healthcare poses a challenge as it requires the emergence of data and evidence to showcase the benefits of digital transformation in utilizing digital health financing tactics (Iveroth, Lindvall, & Magnusson, 2018; Ricciardi et al., 2019). This implementation is viewed as an opportunity to boost productivity by automating tasks and simplifying processes (Iveroth, Lindvall, and Magnusson 2018). Implementation is seen as an opportunity to increase productivity by automating tasks and thus simplifying processes (Iveroth, Lindvall, and Magnusson 2018). Such changes require strong leadership to motivate employees to adapt to the changes. (Iveroth, Lindvall, and Magnusson 2018). This requires leadership that can motivate employees to make significant changes (Staniulienė, & Lavickaitė, 2022; Raghavan et al., 2022).

Research indicates that there exists a variety of interpretations regarding employees' expected contributions, the tangible outcomes of digital transformation, and the challenges faced by managers in effectively incorporating digital transformation into their responsibilities (Lutchen & Collins, 2005). Management plays an important role in bringing everyone on the digital transformation journey from decision to realization in the organization (Solli, 2015). They also play an important role in the journey from decision to the realization of digital transformation as their attitude can enthruse and inspire employees (Staniulienė, & Lavickaitė, 2022). Healthcare is one area where digital transformation has progressed slower than expected, partly due to a history of failed

implementations, where systems such as Electronic Health Records (EHRs) have not met expectations. Furthermore, health IS implementation can be perceived as threatening to the autonomy and power of the medical profession, which is a common explanation for resistance and negative views towards the new systems in healthcare (Vallo Hult, 2021; Venkatesh et al., 2011). Therefore, engaging employees at all levels of the organization ensures that everyone understands the purpose, and importance of digitalization in the healthcare sector.

One recent example is the distribution of financial resources within a Swedish digitalization project, the "Future Healthcare Information Environment" (FVM), an optimistic effort to expand a digital solution. The intention was to create an information environment to meet the healthcare needs of patients, residents, and organizations to improve the quality of care. One of the goals is that it will lead to better communication between healthcare professionals and patients to access the information in the healthcare flow (Västkom, 2022). However, this initiative indicates a potential lack of collaboration between management, middle managers, and employees, as a result, the initiatives do not meet the expectations.

Iveroth and Magnusson (2023) explain in their study that the public sector has financial problems, resulting in a shortage of workers in the health sector. This means that the healthcare system needs to provide 125% care at 75% of the cost but increasing the resources is not a sustainable solution. They provide examples of digital innovation initiatives, where resources were set aside for an innovation platform to secure funding for larger healthcare efforts in the region. In this case, there was a set of challenges faced in scaling digital initiatives in Region Västra Götaland. Cutting back on solutions that were meant to be used more often proved to be a difficult task. Therefore, other methods of governing, organizing, and working on, this problem area are needed (Iveroth and Magnusson 2023).

The key factor for success in the public sector is accurate organizational commitment. In the field of digitalization, IT governance is therefore an important factor that functions as a fundamental basis for the organization to accomplish strategic harmony, value creation, more resources, and risk reduction. (Krey et al., 2011; Lutchen and Collins, 2005 et al., 2005). IT governance, consisting of decision-making structures, processes, and related mechanisms, plays a significant role in digital transformation (Tonelli et al., 2017). Research shows that introducing ITG into government operations can be a difficult task due to its complexity (Tambotoh et al., 2017). (Tonelli et al., 2017).

Examining an organization's IT governance framework is a useful approach to accomplishing all phases of a digital transformation process (Ishlahuddin et al., 2020). Evaluating IT governance can be difficult because it is heavily dependent on the organization's willingness to participate actively in the process (Ishlahuddin et al., 2020;

Krey et al., 2011). According to Qassimi and Rusu et al., (2015), research on ITG in the public sector is not extensive but has been around for a long time. Due to the paucity of research on ITG in the public sector, a research team developed a conceptual model for IT Governance in the public sector. This model describes and tests the relationship between IT and organizational performance, as well as the key components of IT governance, including an organization's capability to achieve decision-making structures, processes, and relational mechanisms (Tonelli et al., 2017).

COBIT 2019 (Control Objectives for Information and Related Technology) is an ITG framework developed as an educational resource for professionals to govern and manage IT in organizations, with processes that act as a guide for the organization to design a functional management system (Rozehnal et.al., 2021; Salman, 2020). COBIT 2019 can therefore be used to support the organization in developing and implementing a functioning management and governance system (Ishlahuddin et al.,2020). It can help organizations plan their strategies, achieve their goals, and add value to their services by having effective IT governance (Anoruo, 2019).

1.2 Problem statement

The study of how organizational culture influences the process of digital transformation has emerged as a prominent and captivating field of research in recent years, drawing substantial interest since 2015 (Cruz-Cárdenas et.al. 2022). A crucial aspect of thriving digital transformation with IT Governance is the significance of culture. Research has pinpointed that organizational culture plays a crucial role in determining an organization's success in navigating the realm of digital transformation (Cruz-Cárdenas et.al. 2022).

A process, such as the process of digital transformation, does not require any real technical experience and should be considered relatively easy to apply (Lobo et al., 2022). Still, many organizations struggle with achieving successful digital transformation, especially in the public health sector. An identified problem is the lack of research on IT Governance in the public sector (Tonelli et al., 2017). Effective leadership is necessary in organizations because of the demeanor of clarification of the purpose behind the goals, how to facilitate the achievements, and how to enable and evaluate decisions. The absence of this specific leadership can otherwise lead to a lack of strategic direction. (Lobo et al., 2022). This results in employees being doubtful to grasp the changes, demanding a protracted process to educate them on the benefits of digital transformation for the organization. Without employee commitment, it becomes challenging to develop the business and obtain success through digital transformation processes. It becomes essential to understand the challenges of IT governance in digital transformation and significant factors. (Cruz-Cárdenas et al., 2018).

1.3 Purpose and research questions

The primary objective of the study is to offer valuable insights into how Swedish healthcare organizations can utilize IT Governance structures for accomplishing digital transformation in their development initiatives. Despite being taught about the need for digital transformation, many organizations struggle to turn it into a reality that reaches employees at all levels. Since digital transformation brings changes, it means that they face major challenges in adapting working methods, processes, and routines. There is often a disconnect between the needs of employees in organizations and the management's awareness of these needs, which can lead to a lack of alignment between visions on a policy level and implementation in practice.

The purpose of this study is to investigate whether factors within the organizational culture in a Swedish healthcare organization create a gap between top managers, middle managers, and employees in the digital transformation process. The purpose of the study is also to investigate how IT Governance and the IT Governance framework COBIT 2019, can support digital transformation. To investigate this topic, a qualitative approach was employed, utilizing unstructured semi-structured interviews with ten participants who all have a role in either implementing or developing digitalization initiatives in the organization.

The following research questions were formulated based on the primary goal and purpose of this study:

- RQ1: What elements of the organizational culture impact the advancement of digital transformation?
- RQ2: How can IT governance methods be utilized to achieve successful digital transformation?

1.4 Case study at Region Västra Götaland, VGR

The thesis was written in collaboration with Region Västra Götaland (VGR) within the framework of an assignment from Koncernstab digitalisering (KSD), based on a need to investigate challenges related to the introduction of digitalization projects in VGR, where the initiative comes from the central level and the implementation takes place locally in the administrations. An agreement was reached to work together starting in March and continuing until May 2023. The purpose of this collaboration was to transform often-overlooked needs that are not easily identified and do not reach KSD. Region Västra

Göteborg considers this assignment a valuable contribution to KSD's transformation journey, particularly in the improvement of its process.

VGR has a digital transformation policy to guide its digital transformation activities. According to the website, *"The power and opportunities of digital transformation provide us with better conditions for fulfilling our mission and achieving the goals in our four main processes and the vision 'The good life'"* (Own translation. vgregion.se). The organization has an IT governance model with the purpose of creating regional collaboration and interaction between business and IT to make the use and benefits of IT more efficient. The principles of the IT governance model are:

“The needs and satisfaction of the customer should be given more importance than the IS/IT. It is crucial to prioritize the whole system rather than its components. Each business function should have only one IS/IT solution. The preferred mode of procurement should be standardized products, services, or solutions. The user should be provided with the required service, information, and support in the correct way, at the right time and place. VGR, IT offers volume-based, non-volume-based, and volume-based services at cost price” (vgregion.se).

Both the digitalization policy and principles of IT Governance can be found in full on the website (vgregion.se).

2. Theoretical frame of reference

This section describes previous research and theories on the central parts of the study, digital transformation IT Governance, organizational culture, and COBIT 2019. The theories are used to analyze the results and discuss the results and analysis. It is placed in the context of the organization's work to establish IT governance for progressive digital transformation.

2.1 Organizational culture

Organizational culture is a key element in achieving the goal of providing quality healthcare (Prodromou and Papageorgiou et al., 2020). Studies conducted in recent years have revealed that culture is a critical aspect of effective leadership (Prodromou and Papageorgiou et al., 2020). The presence or absence of a strong organizational culture can significantly impact the success or failure of an organization and can also shape employee attitudes and behaviors (Papageorgiou 2022). In their work, Cruz-Cárdenas et. al. (2018) draws on previous research on organizational culture to identify and synthesize organizational culture values that have varying impacts on digital transformation. They propose seven crucial organizational culture values that impact digital transformation. These values include (1) outward orientation, (2) trust and delegation, (3) encouragement of boldness and risk-taking, (4) agility and speed, (5) teamwork, (6) an innovative and entrepreneurial attitude, and 7) a learning orientation (Cruz-Cárdenas et. al., 2018).

Establishing trust is crucial within healthcare organizations as it forms the foundation for cultivating a safe and secure environment for employees and patients. This relationship plays a pivotal role in shaping and creating the organizational culture. Organizational culture can be supportive, adaptive, or bureaucratic (Prodromou and Papageorgiou, et al., 2020). Workplaces are typically characterized by a rigid bureaucratic culture where the management employs an authoritarian style, there exists an overabundance of control, and communication is severely restricted across all levels (Slack et al., 2018; Amin 2022).

The goal to achieve stability is limited by centralized and repetitive processes due to resistance to innovation and testing new processes (Slack et al., 2018). To comprehend the makeup of a company's culture, it is important to examine its two primary aspects: flexibility and self-restraint, as well as internal and external focus. Both dimensions impact the organization's efficiency and hierarchy (Amin, 2022). The culture of the organization's internal environment is noticeably affected by digital transformation as new ways of working and new communication channels emerge (Iveroth, Lindvall, & Magnusson, 2018). The success of digital transformation requires ITG processes, and a

digital strategy requires flexibility with transformative leadership (Mulyana, Rusuil, and Perjons 2021).

In the context clan culture is a type of organizational culture described as a comfortable and cooperative environment in areas where there's a strong bond between people. According to research, people in such a culture, characterized by loyalty and traditions, tend to work together more effectively and efficiently (Amin, 2022). Open communication promotes opportunities in the work environment to be open and share knowledge and experiences with colleagues (Amin, 2022). Studies have shown that culture positively affects employees' ability to maintain their interest and commitment to the organization, which is related to their attitude and approach to teamwork (Amin, 2022).

2.2 IT governance concept model in the public sector

Successful implementation of IT Governance needs to be tailored to the specific objectives of the organization but integrating IT governance with digital transformation can pay off financially in the long run to achieve significant improvements in welfare (Tambotoh, et al., 2017). According to Tonelli (2017), ITG in the public sector is about the ability of the organization to collaborate, participate, and lead between IT-related areas (Tonelli et al., 2017). Implementing a conceptual model can help the organization achieve efficiency and performance, and communicate policies and rules (Tonelli, et al., 2017; Tambotoh, et al., 2017).

The public sector conceptual model

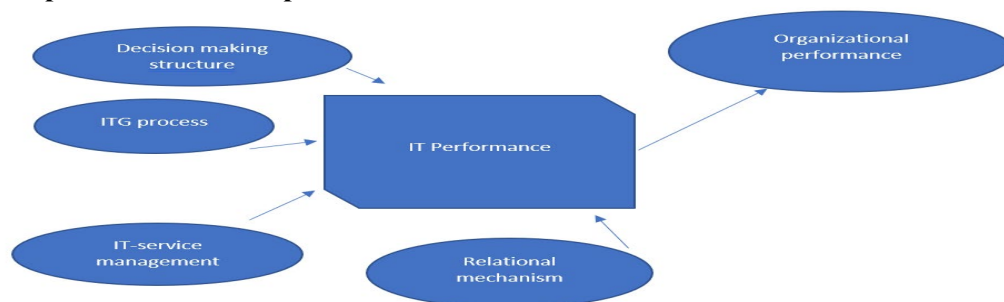


Figure 1: Conceptual model for IT governance. Adapted from Tonelli et. al (2017)

The public sector conceptual model (Figure 1) is a maturity model that serves as a gauge to assess the level of maturity within an organization in terms of effectively communicating strategies and policies that directly influence its effectiveness (Tonelli, et al., 2017). The decision-making structures include the people in the organization who are mandated to make decisions in IT that are to be evaluated and controlled.

Relational mechanisms involve the development of communication between people involved in information technology in the organization (Tonelli et al., 2017). Researchers

have found that the key factors for relationship mechanisms are IT leadership and top managers supporting management in ITG-related initiatives (Tonelli et al., 2017; Tambotoh et al., 2017). *The decision-making framework* refers to the individuals or groups within the organization who are responsible for making crucial decisions regarding IT-related matters. (Tonelli et al., 2017). *IT performance* is about the organization's infrastructure to achieve service levels and economics are linked to organizational goals (Tonelli et al., 2017; Tambotoh et al., 2017).

2.3 Impact of IT Governance on digital transformation

Previous research shows different definitions of digital transformation depending on the context of the individual and the organization they belong to. The concept is adapted to fulfill the right function for the specific situation (Kafel et al., (2021)). The processes in COBIT 2019 (Salman, 2020) can be used as a guide for realization and can be applied in healthcare to create structures and processes to achieve goals and improve quality (Žvanut et al., 2020). In the public sector, it is often based on efficiency, digital solutions, and meeting the demands of employees, patients, and citizens (Qassimi and Rusu et al., 2015). Figure 2, below shows an ITG model for digital transformation developed by Mulyana, Rusu, and Perjons (2021) to clarify the factors that influence digitalization:

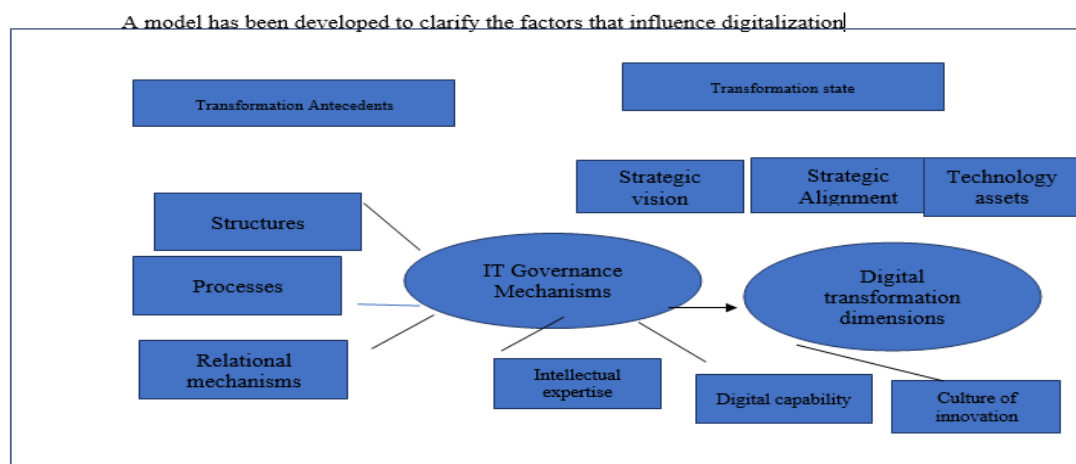


Figure 2: IT governance model for digital transformation. Inspired by Mulyana, Rusu, and Perjons, (2021) based on De Haes and Van Grembergen (2009).

IT Governance can be considered anr to improve efficiency with new routines and ways of working as a result (Iveroth, Lindvall, & Magnusson et al., 2018). IT governance impacts digital transformation when implementing structures, processes, and relationship mechanisms for the partners involved. It plays an important role in supporting the organization in its digital initiatives (Mulyana, Rusu, and Perjons 2021).

Magnusson (2023) has identified four main shortcomings that hinder IT governance in the public sector and contradict the objectives of digital transformation. These include issues with prioritization, pricing, complexity, high IT costs, portfolio management, performance measurement, lack of system park overview, and a focus on efficiency (see Figure 3). These problems can make it difficult to plan strategically and stifle new digital initiatives, ultimately hindering digital transformation and leading to a focus on internal efficiency.

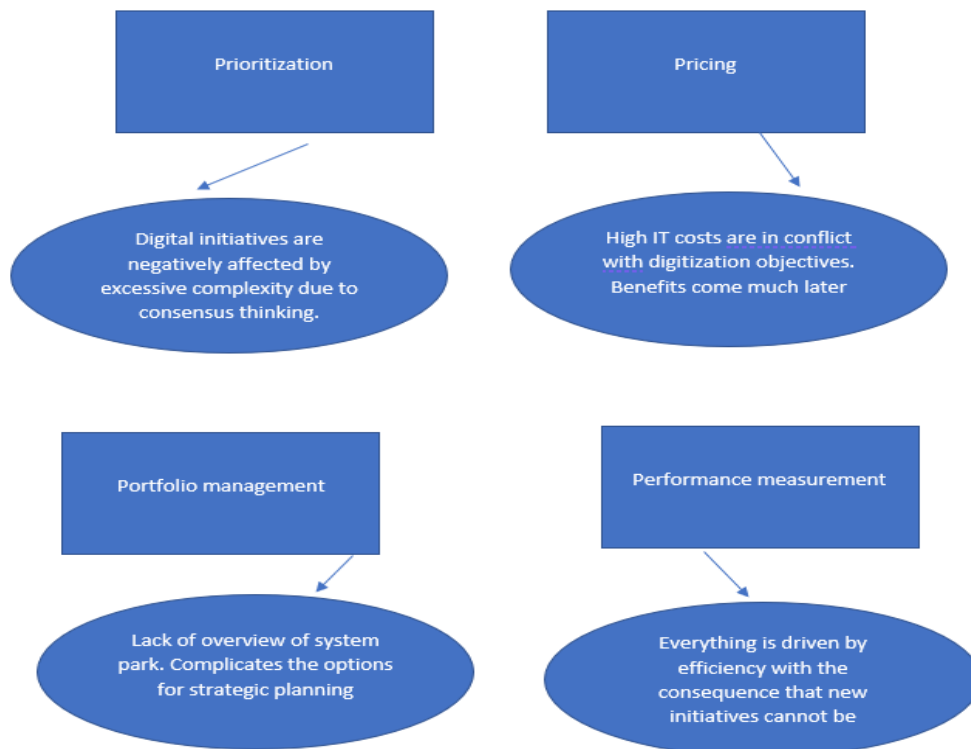


Figure 3: Shortcomings in the governance of IT within the public sector. Adapted from Magnusson and Lindroth (2023).

The changes brought about by digital transformation in public sector organizations mean they face major challenges in adapting and place greater demands on adapting working methods, processes, and procedures and simplifying the implementation of digital technology and new systems (Jonathan et. al., 2021). Employees need to understand the benefits of the changes from digital transformation, which has been identified as one of the biggest challenges (Jonathan et al., 2021; Staniulienė and Lavickaitė, 2022).

Furthermore, digital transformation needs to be managed and governed to achieve efficiency, which requires a functioning governance framework (Ricciardi, et al., 2019). Studies indicate that if organizations lack a well-executed governance structure, it is often due to the absence of a strategy to guarantee the achievement of its advantages (Anoruo, 2019). The quality of the organization is guided by its principles and internal governance, yet there exists the potential for efficiency to assume control (Stigendal, 2018). However, there seems to be a problem with achieving this desired efficiency, as it becomes the

focus, resulting in wasted resources and inefficiency (Stigendal, 2018). Continual debate surrounds the idea that our perception of rationalization may hinder progress, despite evidence indicating potential for desired efficiency (Stigendal, 2018).

2.4 COBIT 2019 Framework Importance for IT Governance

COBIT 2019 is an important framework for IT Governance, as it provides a roadmap for organizations to leverage IT to their advantage. By finding a viable balance between the benefits and risks of technology, and utilizing available resources, businesses can create value (Ishlahuddin et al., 2020). The structure holds multiple elements for the organization to consistently uphold a thriving culture founded on principles and standards of governance (Braga, 2020).

Figure 4 presents a framework consisting of various components such as organizational structure, procedures, information, policies, culture, behaviors, infrastructure, services, and applications. This framework was employed by an organization to establish an efficient IT governance model using COBIT 2019 (Hiererra et al., 2022; Rozehnal et al., 2021).

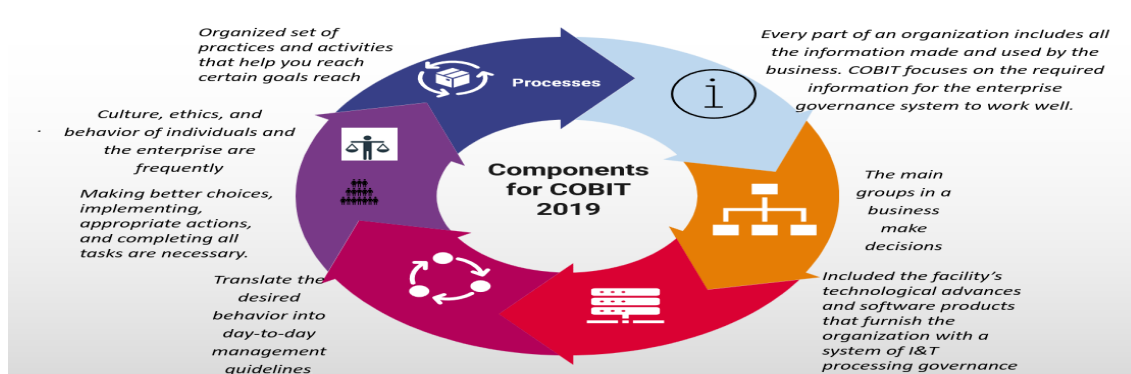


Figure 4 – Components in COBIT 2019 inspired by (Hiererra et al.,2022; Braga, 2020).

COBIT 2019 consists of several processes, especially two, BAI11 and APO007, which can be applied to achieve digital transformation. BAI11 consists of construction, acquisition, and implementation and maybe a guide for organizations to manage projects in digital initiatives (Salman, 2020). The APO007, also a part of the COBIT 2019 framework, may help the organization to identify key personnel and ensure that the right competencies are available. It can also help to manage all project initiatives and ensure they are in line with the organization's strategies.

3. Method

In this section, the study's techniques for exploration, gathering information, scientific methodology, participant choice, procedure and examination, and ethical treatment of data credibility are detailed process and analysis.

3.1 Literature review

This study used a literature review based on Bryman (2012) to gain a deeper understanding of organizational cultural challenges a healthcare organization faces to succeed with digital transformation and factors that play an essential role in digital initiatives with IT Governance as a method. Using Bryman's (2012) suggestions, a narrative search was used to narrow down the articles found by topic to gain a deeper understanding of the area. Research areas that have emerged within the last decade are particularly captivating.

Therefore, a review of relevant literature and previous and new research in the field was conducted to get a picture of the current research area. The method of searching for scientific articles was to use the databases Business Source Ultimate, Academic Search Premier, and IEEE. To some extent, Google Scholar was used, but first, the articles were checked to make sure that they had the structure of a scientific paper according to IMRAD. Keywords used were digital transformation, IT governance, public sector, and COBIT 2019 (see Table 1).

Database	Keywords	Nr of articles	Criteria 1 (full text)	Criteria 2 peer-reviewed)	Criteria 3 (fulltext + peer-reviewed)	Limit Year
Academic search premier	Digitalization or digital transformation AND Healthcare	5958	4789	4684	4695	2011-2023
	Digitaliz* or digital transformation AND healthcare AND organizational culture	7471	5328	6680	4906	2011-2023
	IT Governance AND digital transformation	71	64	62	38	2011-2023
	IT Governance	24437	22510	24119	21009	2011-2023

	Cobit 2019 Framework	3	1	3	1	2011-2023
Database	Keywords	Nr of articles	Criteria 1 (full text)	Criteria 2 (peer-reviewed)	Criteria 3 (fulltext + peer-reviewed)	Limit Year
Business source ultimate	Digitalization* OR digital transformation AND Healthcare	72002	6708	4413	4247	2011-2023
	Digitaliz* OR digital transformation AND healthcare AND organizational culture	7471	5328	6680	4906	2011-2023
	IT Governance AND digital transformation	130	130	99	94	2011-2023
	Cobit 2019 Framework	8	8	8	6	2011-2023
	IT Governance	39982	36280	27502	26171	2011-2023
Database	Keywords	Nr of articles	Criteria 1 (full text)	Criteria 2 predefined	Criteria 3 predefined	Limit Year
IEEE	*Digitalization* OR digital transformation AND Healthcare	3597	608532	-	-	2011-2023
	Digitaliz* OR digital transformation AND healthcare AND organizational culture	4791	28209	-	-	2011-2023
	IT Governance AND digital transformation	75	748	-	-	2011-2023
	IT Governance	3188	35610	-	-	2011-2023
	Cobit 2019 Framework	32	209	-	-	2011-2023

Table 1. Search results in the databases

The study's main components are the categories listed in the table, and the numbers in parentheses indicate the number of hits for each keyword in each database. The search process involved conducting separate searches in each database without any specific criteria, followed by selecting "full text" and conducting another search, and finally selecting both "full text" and "peer review" for the last search. In the IEEE database, all articles are searched in full text and the articles are peer reviewed from the start.

Consequently, criteria two and three were already included in the initial search. The articles included in this study were chosen based on their title, abstracts, and findings.

3.2 Research method – a qualitative approach

The reason behind selecting qualitative methods was to identify trends and comprehend the thought process and decision-making of the participants using inquiries. (Trost, 2010). The purpose of the study was to collect experiences, needs, and lessons learned about digital transformation and the role of leadership in it among employees in Region Västra Götaland. Therefore, a qualitative method was best suited to explore at a deeper level employees' perception, needs, and experiences of digital transformation and the role of leadership and IT governance in this.

A qualitative approach is appropriate for this study to get beneath the surface of the cultural phenomena that can influence the advancement of digital transformation. A quantitative method was not chosen because statistics would not be able to answer the research question. Therefore, the study had a qualitative research approach based on an inductive perspective, where the findings guided the theory. An inductive approach means that during the work there was always an iterative process of selecting relevant theories, models, and previous research (Bryman, 2012). The qualitative method has a closer connection to theory and focuses more on the words of the participants compared to the quantitative method which focuses on numbers and statistics (Bryman, 2012). The steps followed are described in the model in Figure 7.

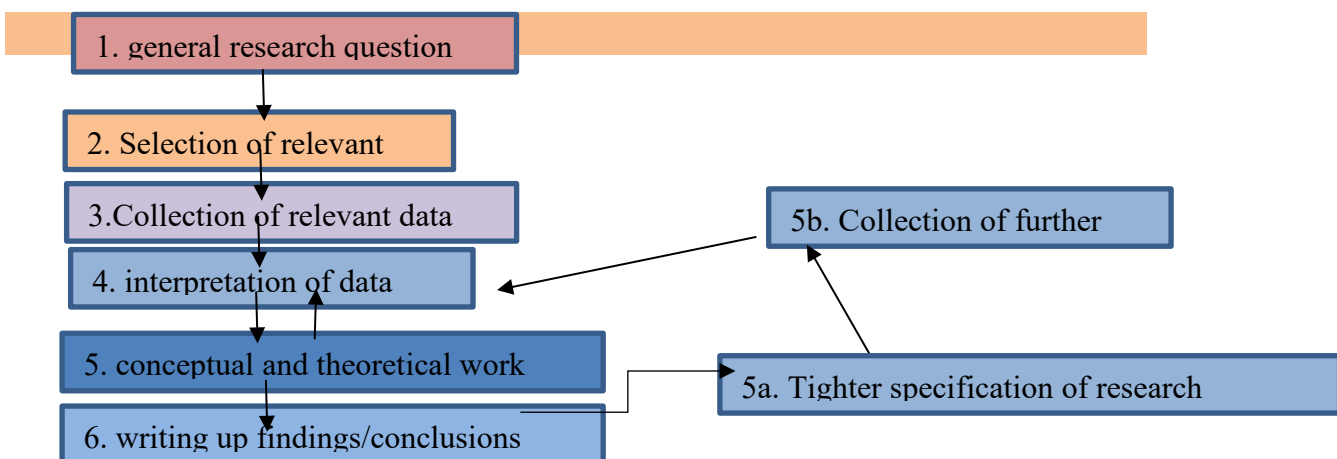


Figure 7: Qualitative method for the study. Bryman (2012)

3.3 Data collection

The data analysis method used a thematic approach, as the research needed a data collection method to manage its inquiry (Bryman, 2012). To obtain a more nuanced view of the participants' perspectives on the research topic, qualitative interviews were considered best suited in a scientific context (Bryman, 2012). This method was the most appropriate for this study as the purpose was to gain an in-depth understanding of the participants' needs experiences and perceptions.

3.3.1 Semi-structured interviews

For this study, a qualitative approach was chosen with semi-structured interviews as the method for data collection (Troost, 2010). In April 2023, semi-structured interviews were conducted using a pre-prepared interview guide, allowing for some spontaneous responses (see Appendix A). Participants were chosen based on their professional role and sent an email consisting of an information letter and consent form (Appendix B).

Although the interview method is an effective way of collecting data, there are some disadvantages from an ethical perspective because there's a risk it may intrude on their integrity. Therefore, it's important to treat the participants with respect and empathy.

(Walsham, 2006; Myers et al., 2007). Ethical considerations were applied in the study to respect the integrity and respect of the participants (Bryman, 2012), as further described below (see section 3.2.3).

3.3.2 Participants

To gain a better understanding of the participants' responses in the study, it is crucial to have some background information about them. The ten individuals involved are actively involved in implementing digital transformation and have a close relationship with the management, influencing decisions on digital strategies. All participants work in healthcare or collaborate on digital transformation projects, selected based on their expertise and experience in digitalization and leadership within the organization. The professional role and duration of the interview for each participant are listed in Table 3 below. A more detailed description of the participants' background and their roles and experiences with digital transformation is provided in the results (section 5.1) as this provides important context for the study and a more in-depth understanding of the results.

Microsoft Teams was utilized for all interviews due to its efficiency and adaptability. Mobile phone recordings were transcribed using Word. Consent was obtained in advance from the participants, who were informed of their right to withdraw and the purpose of the recordings.

<i>Participant</i>	<i>Organization</i>	<i>Title</i>
<i>P1</i>	<i>1</i>	<i>Health professionals</i>
<i>P2</i>	<i>1</i>	<i>Head of the medical department</i>
<i>P3</i>	<i>1</i>	<i>Information Systems Development Manager</i>
<i>P4</i>	<i>1</i>	<i>Process managers</i>
<i>P5</i>	<i>1</i>	<i>Functional leaders</i>
<i>P6</i>	<i>1</i>	<i>IT development manager, hospital</i>
<i>P7</i>	<i>1</i>	<i>Coordinator for regional development digital transformation</i>
<i>P8</i>	<i>1</i>	<i>Coordinator for information systems, hospitals</i>
<i>R9</i>	<i>3</i>	<i>Digitalization strategist</i>
<i>P10</i>	<i>1</i>	<i>Computer scientist</i>

Table 3: Presentation of the participants

3.4 Processing and Analysis

To process the gathered data, alternative online tools were initially attempted for transcription, but their translations were not accurate. Consequently, all transcriptions were conducted using Word Online. After completion, they were translated into English through Deepl.com and Grammarly. Subsequently, they were individually imported into Nvivo 12 for thematic analysis. Initially, a first categorization was done in the program to generate codes, a first draft of themes, where quotes from the participants were sorted into each code folder according to what was considered the best fit from the transcripts. This was followed by a secondary categorization, where additional codes were generated to identify patterns. An overview of the themes and the result from the thematic analysis is presented in section 4.2, figure 8.

3.4.1 Ethical Handling of Data

Ethical considerations have been applied in the study to respect the integrity and respect of the participants. Bryman (2012) describes four areas of ethical concern, although somewhat overlapping, which relate to harm to participants, lack of informed consent, invasion of privacy, and deception (p. 143). Adherence to ethical principles is an effort to achieve good quality research and reliability of results. To uphold ethical guidelines, the following measures were implemented:

Harm to participants does not only refer to physical harm but also includes confidentiality of records and potential harm to the researcher. In this study, all participants were assured

that their involvement would remain confidential, and their identity would remain undisclosed. Therefore, they will be presented anonymously, without revealing their age or name.

Informed consent: A letter was sent with information about the purpose of the study and detailed information about the time and place of the interview, which was in teams. Participants were required to provide their consent to begin recording before the interview could commence.

Ensuring privacy and secrecy is linked to confidentiality, but also extends to issues around the right to privacy, regarding sensitive questions such as income, sexuality, and religion as well as how the data is handled and stored. Participants were informed about their right to withdraw at any time, and that the material will only be used for the study. All data in the form of recordings and transcripts are stored securely so that no unauthorized person has access to the data.

Deception is described as the part of the study where the researcher represents their work as something other than what it is. Transparency and openness were vital elements as the participants were fully aware of my role and the study's objectives.

3.4.2 Trustworthiness in Qualitative Research

According to Bryman (2012), trustworthiness is particularly important for assessing qualitative research. Trustworthiness encompasses four criteria: *transferability*, *credibility*, *dependability*, and *confirmability*. The criteria and how they have been applied to this study are outlined below and further discussed in the methodological discussion (see section 6.2).

Transferability involves studying a smaller group of individuals who share certain characteristics that contribute to qualitative results. The focus is on uncovering the unique aspects of the social world being studied. In this study, the social world refers to the context of the ten participants within the organization and their professional roles. *Credibility* refers to the extent to which this study's results are sufficiently feasible for the reader to comprehend all aspects of the paper. The participants provided validation, through confirming the interpretations of their answers during the interviews, and by anchoring the thesis project within VGR.

Dependability is ensured by saving all recordings from the interviews and transcripts in this study for future access by other researchers. *Confirmability* is maintained by conducting the interviews objectively, free from personal values or preconceived notions, and with an open mind as a researcher. Bryman (2012) also mentions *authenticity* as a criterion for assessing a qualitative study. This was achieved by gathering different perspectives from individuals with varying roles within VGR, all about the same topic

4. Result

This section presents the data collected through the semi-structured interviews conducted. First, the participants and their professional roles are presented, to provide context for the study and a more in-depth understanding of the results. This is followed by the results from the thematic analysis, with the themes identified in the collected data, informed by the theoretical frameworks.

4.1 Background information about the participant's role and experience with IT adoption and digital transformation

Participant 1 works at a department where they have recently received a new system that utilizes voice recognition and dictaphones to transcribe text. P1, who plays a key role in the department's implementation phase of a speech recognition program, is a strong advocate of the system's many benefits. In particular, the benefit of quickly accessing information without the need for manual searching. The integration of this speech-based technology is seen as a tool for reducing workload and saving time in daily work. The team has already experienced positive outcomes from the system, enabling them to work more efficiently. Still, there is a limited amount of time available to train colleagues on the system, pointing out the potential value of an evaluation follow-up program to ensure a successful implementation process.

Participant 2 actively participated in a development initiative that integrated a digital reporting system. Participant 2 actively participated in a development initiative that integrated a digital reporting system. The system is a joint effort between managers and the medical records department, to expand their services. Understanding its functionality facilitated staff training. P2 also contributed to implementing a digital consultation board accessible to all hospital employees. This gradual deployment in two departments and the positive staff reception were notable. However, embracing digital transformation remains challenging due to skepticism towards change. Continuous evaluation is crucial for ongoing enhancements.

Participant 3 works as a development manager, responsible for leading multiple digitalization projects. Having various reporting systems in different departments poses challenges, as it becomes arduous to retrieve information from multiple systems. A difficulty emerged when hospital discharges caused a crisis, prompting the need for speedy digital staff communication. As a result, a specific journal could be accessed to generate a power BI report, revealing the senders and recipients. Additionally, P3 holds the position of chairman in a county hospital, overseeing the coordination of various information systems. This includes planning and preparing for the implementation of a new system across the region. P3 is also the project manager for a digitization solution currently being implemented in healthcare operations. This project involves several sub-

managers who handle communication with organizations, taking up a significant amount of time from daily tasks.

Participant 4's role in the introduction of information systems is to identify the problem areas find out which areas need improvement and find solutions. Some of the solutions P4 has created and some of the help P4 has received from projects.

Participant 5 has a role that functions as a link from business development on the part of the organization where certain needs can be solved with digital solutions. At P5, employees from the organization gather to express their requirements and engage in a collaborative conversation about finding a technical resolution. During the project's initial stages, P5's responsibility is to kickstart the process and facilitate the transition to the team responsible for executing the solution.

Participant 6 provided support to the organization as a final resort before seeking help from the Group Staff Digitization team at VGR. P6 has been focusing on Sharepoint management, which is the primary document management system. Before implementation, P6 collaborates with organizations to gather their feedback on the system's functionality. If necessary, P6 adjusts the system to meet their requirements.

Participant 7 has a mission that encompasses VGR: 's overall progress, including the advancement of businesses, universities, and relevant courses. They strive to be an exemplary model for sustainable regional development, encompassing public transport, democracy, and environmental concerns. P7's role is to inspire various stakeholders to accelerate their digital transformation in society.

Participant 8 is a project manager and coordinator for information systems in a hospital in the region, and the responsibilities are diverse and can range from overseeing the replacement of computers to managing robotic process automation. Recently, P8 was tasked with leading a digitization project to streamline access to Office 365.

Participant 9 has a role, to be the party that communicates with the region from the municipal side, both in health and medical care. For the past 10 years, P9 has been working with the Association of Local Authorities in the Gothenburg Region on various social and labor market issues. This has included everything from migration and integration issues to care for the elderly and the introduction of changed working methods in connection with IT.

Participant 10 is responsible for tasks in the national knowledge management system, which means that strategic issues are very important in everyday life. Daily tasks may include helping people to deal with certain strategic issues or attending meetings. Strategic concerns may arise in the knowledge management system or in the different

regional steering groups that deal with master data, information management, or related matters.

Working with their team, their main responsibility is to connect the organization and the technology, acting as a liaison between the two. The participants articulate the organization's information requirements in a manner that enables the digital solution to be examined and consequently fulfill those requirements. To meet the business's needs, it is vital to interpret their information access and digitization requirements. However, collaboration with IT experts is not always feasible at the onset of digital transformation, as they join later to configure systems alongside colleagues.

4.1.1 Summary reflection: Digital transformation involves implementing new approaches that bring added value

This section offers insights into participants' perspectives on digitalization, providing a comprehensive understanding. Participants had diverse interpretations of digitalization with one emphasizing empowerment, another focusing on work changes, and a third highlighting business processes or changes. According to Participant seven, digitalization is a tool for acquiring authority. The participant also believes that digitalization can change the way of working. Digitalization is described by this participant as a disruptive innovation that changes business processes. In contrast, participant five sees digital transformation as an end rather than a goal. In contrast, participant five regards digital transformation as an end rather than a goal.

During the interview, the topic of discussion was centered on the interviewee's encounters with digital transformation and their interpretation of the term. According to the first Participant, the most important factor is ensuring the safety of patients. Meanwhile, the seventh Participant emphasizes that the implementation of digital technology not only changes the way work is done but also increases the potential for gaining influence. As per the individual's response, incorporating digitalization brings about a transformation in their work approach. It is a type of innovative change that pertains to a business's processes.

The participants hold the belief that digital transformation acts as an enabler in achieving various goals, recognizing it as a tool rather than an end. Additionally, the Participant argues that digital transformation is not solely related to information technology, but also involves knowledge. Even in its digital form, it has the power to generate, it has the potential to enhance worth or boost productivity, particularly when select elements remain undisclosed.

Additionally, digital transformation can enhance patient care. Our working group held lectures on digital transformation strategy, discussing its definition, different forms, and the reasons why it should be implemented. It is important to note that efficiency can be achieved by retaining control. Furthermore, digital transformation can lead to the creation of better patient care (P2).

The concept pertains to the transition from one system to another. Nevertheless, there is an increased scope for digital transformation that facilitates efficient management of work. Participant one emphasizes the significance of determining the pertinent information for a business well in advance, even before considering the use of digital transformation to achieve objectives. The individual's perspective is that prioritizing patient care should involve embracing digital transformation. This enables healthcare professionals to allocate more of their time to actual healthcare tasks. According to the first Participant, the digital transformation journey can sometimes be challenging due to the numerous informatics issues that can arise, making it easy to feel overwhelmed.

4.2 Analytical themes

This section presents the themes resulting from the analysis, summarized in Figure 8, and further elaborated on below. The seven themes are i) encouraging an expansion of communication and fostering opportunities for dialogue, ii) engaging staff members to diminish doubt and skepticism, iii) prioritization of time and resources is flawed, iv) unclear strategies and explication of approaches for determining the course of action, v) digital solutions are the driving factor instead of the needs, vi) bureaucracy and legal aspects Hinder Visions, and vii) access to the right information.

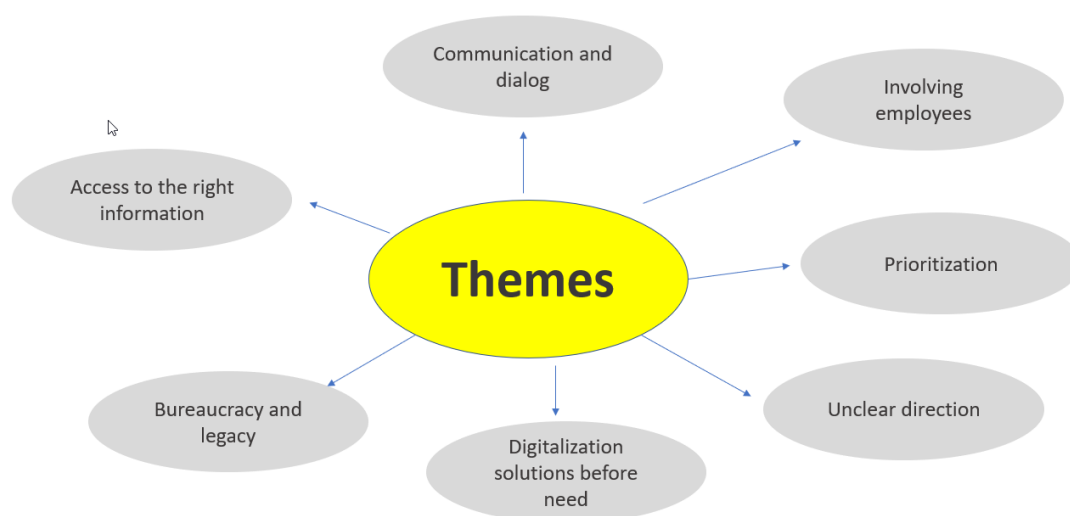


Figure 8: Mindmap of themes

4.2.1 Encourage an expansion of communication and foster opportunities for dialogue

This theme relates to the importance of effective communication and dialogue between organizations and leaders. Several participants expressed their belief that effective communication is crucial for conveying the advantages of new initiatives to the organization and, most importantly, for ensuring that these benefits are realized. According to participant five, acknowledging needs is crucial, and even if some needs cannot be effectively expressed, it is essential to reciprocate communication to address any uncertainties.

Effective communication is crucial within the organization's departments as it fosters the creation of safe and secure relationships through meaningful dialogue. Participant five highlights the importance of effective communication in understanding the need for additional time to familiarize ourselves with new digital solutions. It is crucial to convey these changes to inspire organizations to embrace and utilize these innovative tools.

Paying attention to the needs of others is crucial. Although one may not be able to fulfill all those needs, it is essential to provide feedback.

Communication is key, and it cannot be emphasized enough (R5).

Several participants talked about the communication channels they use to communicate with the organizations, mentioning management meetings, the intranet, and weekly management letters. Two participants claim to have team members who fulfill various roles in driving the process of digitalization. According to the fifth participant, it is crucial to initiate early communication with the business to eliminate any resistance and facilitate the acceptance of a new digital solution.

To introduce new digital solutions, it is important to gain the trust of those who will use them and ensure their safety with the technology. According to some participants, the adaptive aspect is crucial for those who struggle with adjusting to new work methods and technological advancements. One participant suggests that being involved in the events and actively participating in the transition can make the process of adaptation much smoother. Participant two emphasizes the importance of establishing a consensus within the organization regarding its direction and the need to actively engage and involve employees. This Participant argues against the notion of simply stating the intention to "digitalize," as this term is often met with unfavorable reactions from many individuals.

There needs to be a strong consensus about where we are going. And I also think there must be a drive to get people involved. That's important because it doesn't help to say we're going to digitalize. After all, for many people digital transformation is that (R7).

Participant seven emphasizes the significance of effective communication and managerial perspective in the context of digital transformation. According to the participant, a well-defined strategy is crucial for utilizing digitalization within the organization, thereby ensuring success in the transformation process. It is stressed by the participant that the successful execution of this strategy lies in the hands of management. Furthermore, the Participant highlights the importance of management support in facilitating change, as progress cannot be achieved without it. Undertaking a digitalization project is a challenging task without the backing of management.

The second participant argues that there is frequently a lack of comprehension among individuals within organizations regarding the rationale behind a change. They are still not aware that the decision will be based on the region's decision, without any accompanying explanation.

Understanding the purpose behind our actions is crucial for user comprehension and acceptance. Even if a decision has been made at a regional level, explaining can help alleviate opposition. However, some individuals may remain steadfast in their disapproval. Additionally, proper preparation when implementing new features, such as a shopping basket, can also affect user perception (P5).

According to participant five, there will forever be individuals who possess strength and oppose any alterations, and this may also depend on the person. This approach offers the advantage of helping organizations recognize their priorities and understand that they are initiating a process of cultural transformation. According to the same Participant, it is essential to engage employees in conversations from the very beginning. Participant one highlighted that the best approach is to personally interact with individuals to identify their concerns. This enables the seamless integration of innovative digital solutions.

The second participant holds the view that employees should not be made to feel coerced into something simply because those who propose it appear competent. Building trust and involving employees in decision-making processes are crucial aspects to consider. It has been observed by the Participant that individuals who have been part of a digital system since its inception tend to acquire new knowledge about it distinctly. The second participant also emphasizes the importance of involving steering and working groups in the early stages of any change. They hold weekly reviews with their department staff to address new organizational requirements.

4.2.2 Engaging staff members to diminish skepticism and resistance to change

This theme concerns the importance of involving operations early in the change process to reduce skepticism. To provide a rationale for a decision, it is essential to allocate sufficient time for preparation. Several participants believe that resistance often emerges in response to abrupt changes. Participant nine believes that it is time to untie the knots of resistance, which can be prevented by being honest about one's intentions with change. The reason behind resistance towards digital solutions is the apprehension of being replaced or terminated from their job. It's understandable for healthcare workers to resist change during digital transformation since they value the personal connection with patients. After all, their profession revolves around human interaction.

The individuals in charge want to initiate an early conversation with the business regarding the anticipated arrival of the solution. This is so they can prepare for any potential pushback from the staff when it comes to adopting a new digital solution and working in a different manner (P5).

Healthcare organizations need to be involved from decision to implementation and this will make it easier to get everyone in digital transformation. Governments and authorities play a major role in removing resistance, but when change occurs without first informing, it creates strong resistance. The commitment must come from the organization to feel satisfied. There is also a question about how clear the organization is in conducting a dialogue with the employee.

In my opinion, I could act as an obstacle to change, even in public organizations. When someone has been doing something a certain way for a decade, they might resist any attempts to change the process because they risk losing what they have gained from it (P7).

According to the second participant, motivating people can be challenging, but it becomes easier to gain their support when they comprehend the underlying reasons and objectives. Participant nine suggests that behavior and attitude play a significant role in how we handle change. Our interactions and treatment of others can influence how we navigate through changes. The degree of resistance exhibited by employees towards the changes resulting from digital transformation will be impacted. According to the third participant, leaders can enhance employee morale and minimize resistance by actively engaging with the workforce, fostering a sense of visibility and acknowledgment within the organization.

According to the third participant, the reluctance to embrace change stems from apprehension and concerns about the impact on their professional position. In their view, not everyone perceives a novel approach to work as advantageous. They encountered a

situation wherein the organization underwent a procurement process, resulting in the implementation of a completely unfamiliar system that was met with resistance from the workforce. The individual acknowledges the challenging nature of the task, highlighting that those involved in embracing the introduction did not influence the decision.

According to the fifth Participant, assuming accountability and actively participating by sharing perspectives and ideas were crucial. It is incumbent upon all individuals to engage and take ownership.

Individuals need to take ownership of their actions and thoughts. Simply asking questions is not enough; one must also come up with ideas and suggestions to contribute. It's essential to actively participate in discussions and offer valuable insights (P5).

Participants are grappling with the question of how organizations can effectively sustain their dedication to digital solutions in the long run. Additionally, doubts arise regarding whether businesses fully comprehend the extent of commitment required from them by the organization. It is commonly assumed that every employee will assume personal accountability for enhancing the efficiency of their occupation. To be a source of inspiration for their employees. The fifth participant emphasizes the importance of every employee's contribution towards enhancing work efficiency. Everyone needs to strive for excellence in their respective roles.

According to the sixth participant, the success of an organization relies on individuals within it motivating others to participate, although this approach may not always be as effective as desired. On the other hand, the ninth participant asserts that acknowledging digital transformation as a cultural process is crucial, and it must be embraced regardless. Everyone must contribute and maintain equilibrium throughout this transformative journey.

4.2.3 Prioritization of time and resources is flawed

This theme deals with employees' perceptions of how leaders set their priorities in digitalization efforts. A major problem, addressed by the participants, is the lack of resources and time for people in organizations to familiarize themselves with the new changes brought about by digital solutions. According to the third participant, mobilization is crucial for acquiring the power to bring about change, which presents a significant obstacle in obtaining sufficient resources. The third participant expresses the view that persuading more individuals to pay attention can be challenging. However, they emphasize that simply attempting to increase listenership is insufficient. According to them, the solution lies in recruiting supervisors who can facilitate smoother communication with their daily work.

While the wheel is likely more effective, we will stick with angularity for now as it's easier to comprehend. The main obstacle to implementing new concepts is the limited time and resources in the healthcare industry. However, any resources that become available will be utilized to drive digital transformation (P5).

The third participant opines that being excessively anxious is counterproductive as it impedes the ability to learn and assimilate new information. According to the participant, scarcity of resources and people's hectic schedules are the major hurdles to overcome. The participant argues that liberated resources should be employed to propel the process of digitalization. A notable predicament arises, as there is no available space to release resources due to the current highly burdened situation. Participant three explained:

Mobilize to gain the power to change, which is the difficulty of getting enough resources and working on the issues. I think it is great that you do it when you are a small municipality and so that you can sort of share resources and work on the issues. But how can we collaborate more around digital changeover, and digital transformation so that we can dare to be more innovative and take these? (P3).

P3 and P5 state that a limitation is the fact that managers are responsible for ensuring that resources are allocated efficiently but prioritizing this task can present difficulties. According to the third participant, it is crucial to focus on one task at a time. However, they also acknowledge that there are instances when there is an overwhelming number of tasks occurring simultaneously. As a manager, the participant suggests the need to prioritize investments based on urgency.

Employees need to become better educated and trained in digital tools. According to the second participant, digitalization requires designated personnel, but they often lack the necessary resources. According to Participant one, the primary cause of time shortage is an excessive workload due to an insufficient number of staff to handle the high patient demand. This in turn affects the ability of staff to learn a completely new system and to have time for development work. Staff need to be trained and educated in new systems to increase efficiency. Participant five acknowledges the scarcity of this precious resource within organizations and firmly asserts that clinging to an inefficient work method merely for the sake of staff satisfaction is unwarranted, as is the blind pursuit of time maximization.

4.2.4 Unclear strategies of direction

This theme focuses on employees' perceptions of management's ability to structure digital transformation processes. The participants' experience is that there is a lack of clarity about roles and responsibilities in the organization and call for strategies of direction. Participant five suggests that there should be greater clarity provided to external companies regarding the nature of their work and the organization they are collaborating with. Participant nine asserts that regardless of the system being digital, it is imperative to address necessary tasks while also accommodating human capabilities. Participant four emphasizes the importance of maintaining a strong sense of direction, urging for a significant drive to guide their efforts.

Furthermore, they support the idea of making a deliberate attempt to involve and incorporate employees into the proceedings (P4).

Participant six believes that it is important for management to be clear about what they are supposed to be doing and what management is supposed to be achieving as goals so that organizations can steer in the right direction towards those goals and understand what they should be focusing on most. The Participant emphasizes the crucial significance of organizations being aligned and well-informed about what is applicable. According to the fifth Participant, if management overlooks a crucial element, they should revisit the task and ensure its accurate completion. It is crucial to ensure a solid operational and managerial strategy without financial insufficiency. Effective management relies heavily on the ability to communicate clearly.

Participant three argues that planning is challenging due to limited visibility into upper management. Uncertainty arises regarding resource allocation and supporting organizational planning. The individual argues that the primary shortfall is the absence of a comprehensive vision or strategy. Participant two mentioned setting one-year objectives for their organization, but there can be discrepancies when transitioning to digital systems over multiple years, which may not align with the organization's goals.

It is very difficult to plan. It's very difficult to find out. What is happening? What comes from the top when you say what comes from the top? For example, the digital transformation of the Group's staff, which we are going to do this year or next year. What resources do we need to have here to meet that need? And the same thing when things come from the workplace. The tenderness, how to support them in the best way so that it becomes difficult to plan? That's probably the most difficult, the big one. The lack, like the fact that you don't have the whole picture, no master plan of what's going to happen (P3).

P2 and P3 discuss the notion that management does not personally create systems, but rather formulates a vision. The individuals interviewed assert the importance of having expertise in information systems, as they are not directly involved in their creation. Their role primarily entails envisioning the desired outcome. According to the interviewees, the emphasis on financial gain and prestige, coupled with a relentless pace, leads to uncertainty and inhibits trust in the decision-making process. The interviewees suggested that management should exercise caution and prioritize other factors over money and reputation. By adopting this approach, it would become easier for them to recognize areas of inefficiency within organizations.

I think you need to dare to use the handbrake more often, i.e., stop. It does not work (P2).

According to the second participant, the management team holds discussions regarding potential changes in the organizations, but the organizations themselves are not directly involved in the decision-making process. In these gatherings, they deliberate on the ideas that ought to be put into action. According to the fifth Participant, there appears to be an internal discord within the establishment, resulting in a dearth of realization that every decision carries an inherent political nature. On the other hand, the ninth participant holds a differing viewpoint, asserting that every decision must be grounded in these political considerations.

One participant mentioned the presence of an internal conflict and lack of awareness that every decision is political, while another stressed that all implementations should be based on political decisions. A third Participant emphasized the importance of being aware of projects that require political decisions. On the other hand, a separate Participant acknowledged the benefits of management but criticized the lack of communication between management and employees. According to this participant, the focus on efficiency measurements overshadows other important aspects of organizational functioning.

In my opinion, upper management should focus on analyzing efficiency statistics. If their goal is to prioritize quantity over quality in terms of meeting people (P1).

Make sure you have a good plan for operations and management and this lack of funding in any case as I mentioned before (R5).

To effectively drive digital transformation, it's crucial to clearly define who should be responsible for leading the efforts. Progress can be interrupted if those in managerial roles lack a cohesive vision, as per the seventh Participant. Furthermore, the participant argues

that digital transformation is not the collective responsibility of all, but rather a matter that rests solely on the shoulders of senior management within the council. The first Participant underscores the significance of possessing the appropriate skills in change management, as opposed to relying on external sources. According to this viewpoint, management must grasp the fact that digital transformation is a form of business growth. The participant holds that trust is established through favourable encounters and suggests that digitalization solutions should not be implemented, without first comprehending the advantages they offer to all individuals to be involved.

All ten participants ponder over the authority to determine the purpose of one's creations, as they believe that an application has lost its value. The participants do not believe it falls upon them to determine their required IT resources, and they perceive it as challenging for the digitalization team to make such decisions. According to the seventh participant, it is crucial to develop a well-defined plan for incorporating digital transformation into the bigger picture. Similarly, four other participants concur that it is imperative to establish a clear direction and determine the necessary actions for the organization.

4.2.5 Needs should be the driving factor instead of the digital solution

The main point of this theme revolves around organizations giving precedence to their requirements instead of relying solely on the solutions provided by digital transformation. Participants highlighted the significance of organizations taking charge of determining their own needs. They also emphasized the necessity for businesses to take a proactive approach toward resolving the digitalization challenges mentioned in the preceding themes.

A place with a digital solution. So, I think it's suddenly a bit different somewhere, there's always a business need in the background, but I think sometimes the digital solution gets a bit, well a lot of focus (P10).

Participant three points out that although there is an acknowledged necessity within the organizational realm, the disproportionate focus on digital solutions is eclipsing other crucial elements. Participant one expressed concerns about a lack of clarity regarding whose needs should be prioritized, which can result in misdirected attention. Participant two presents an opposing viewpoint, suggesting that the needs should stem from the individuals who directly encounter them. Conversely, participant seven contends that the main emphasis lies in satisfying the needs of the managers rather than prioritizing the needs of the organizations.

Just a general knowledge about the needs in your organization. Of course, you can do it systematically (R7).

Participants nine express requirements in terms of acquiring knowledge and obtaining the necessary information to effectively carry out their duties in a manner that benefits patients. There is a need for an understanding of how it works in the healthcare system and a need for an understanding of what health professionals need to do their job to provide quality care.

Such as those who also do not have insight or understanding of how health care works who has what responsibility and the organizational boundaries (R9).

Participant seven suggests that improving employees' ability to express their needs could result in time-saving benefits for the organization. According to participant five, organizations should assume responsibility for recognizing needs and engaging employees from the outset to achieve favorable outcomes. Conversely, participant nine asserts that managers lack the essential understanding of organizational dynamics, including the intricacies of healthcare operations, division of responsibilities, and organizational limitations.

The individual argues that there is an excessive amount of discussion without corresponding implementation. To enhance their organization, managers are advised to gain a thorough comprehension of its requirements. Furthermore, they emphasize the significance of fully dedicating oneself to recognizing the necessities that benefit the entire team.

The needs come from the business from the beginning, and you must have those who need to be involved from the beginning for it to succeed. Because the needs need to come from the business from the beginning. But the decision must still come from those who have the need (R5).

4.2.6 Bureaucracy and Legal Aspects Hinder Visions

The central idea here refers to how the participants perceive the organization's bureaucracy as deeply ingrained, hindering the implementation of digital visions and ideas. Some participants expressed that the categorization of data posed challenges in their work. Participant five believes that certain tasks need to be carried out in this context, for example when a new system is introduced. This requires a review of security levels. According to the fourth Participant, policies and guidelines act as a hindrance, preventing the realization of ambitious visions and ideas due to their opposition to VGR policy.

As a result, employees face the repercussions of having their daily moments cut short due to being deemed in violation of company policy. The individual being addressed reveals

that they have been driven to partake in physical toil due to certain circumstances. As per the sixth participant, managing an employee proves to be a challenging endeavor and offers no opportunity to influence their productivity.

We are quite tightly controlled. Even what we're going to do, we don't have a choice. What we do is make some choices. Decisions are then made on those choices (R6).

On the other hand, participant two expresses a contrasting viewpoint, stating that although they lack their policy, they adhere to the guidelines set forth by the organization they collaborate with for their digital transformation efforts. They have a business plan with a focus on digital transformation with set targets for what they will do from year to year. According to the eighth participant, a multitude of approaches exist, including those about healthcare, cultural outreach, transportation provisioning, regional growth, and digital revolution.

According to participant nine, the digitalization efforts of healthcare and local governments are often hindered by an array of legal and regulatory factors, which create substantial barriers to progress. According to the participant, contemporary managers possess a conventional legal mindset and exhibit a reluctance to consider alternative viewpoints. Rejection is a common experience for the participant, who frequently finds themselves in challenging situations. From the participant's point of view, without proper attention and clarification of the legal aspects, the advancement of digitalization in municipalities and healthcare becomes a challenging effort.

It's almost impossible for municipalities and I realize that healthcare is also moving forward. In digital transformation properly, if we don't get the legal aspects right and a puck or it is that there is such a big difference (R9).

4.2.7 Access to the right information

This theme revolves around how individuals perceive the importance of having access to accurate information. Participant six emphasizes the significance of management providing information to end users, acknowledging the inherent difficulties in this task. They believe information must flow smoothly and accurately, ensuring a comprehensive understanding throughout the entire process. Gaining access to information can be quite a hurdle, as they have experienced. Only to encounter another hurdle in the form of management hierarchy, where a designated liaison is responsible for facilitating communication. According to all the participants, this guideline is the one they are bound to adhere to.

The fifth participant highlights the importance of precise information and data in organizational systems. All participants also mention the challenge of addressing information security concerns and the existence of guidelines to navigate these issues. A team of individuals is dedicated to handling such matters and providing support to the organization. Firstly, the management of the hospital is informed, and subsequently, this information is disseminated to all the managers across the entire hospital. Once disseminated, it becomes each manager's duty to effectively communicate the information to their respective team members.

You must ask yourself what information is relevant to a business in a process long before you even have an idea that digital transformation is a tool for the business to get support in the information management required (P10).

According to participant two, there are various means of accessing information in the workplace, including the intranet and meetings. According to participant five, having early access is of utmost importance as it allows organizations to adequately prepare beforehand. Conversely, the second participant argues that the level of authority a person holds directly correlates with the depth of their insight and access to information.

According to participant ten, the primary obstacle lies in convincing others to alter their perception of information. The participants emphasized the frequent confusion surrounding the term informatics, noting that many individuals refer to information structure. They argue that it is crucial to inquire about the pertinent information for an organization before initiating the actual process. According to participant two, there are various means of accessing information in the workplace, including the intranet and meetings. Participants two and five share the belief that the level of access to information is determined by one's position in the organizational hierarchy, with those in higher positions receiving it first.

According to the fifth participant, early access is deemed essential for organizations to adequately prepare beforehand. Meanwhile, participant two proposes that as one ascends in their position, their understanding of information deepens accordingly. In the opinion of the tenth participant, a significant hurdle lies in persuading others to adopt a different mindset regarding information. Participant ten has highlighted a common misconception where informatics is often misconstrued as information structure. The participant emphasizes the significance of determining the relevance of information to an organization before commencing the actual process.

5. Analysis

This section links and interprets the findings from the empirical data to the theoretical reference framework of the study. The analysis chapter follows the same structure as the reference framework, including IT governance, COBIT 2019, organizational culture, and digital transformation. An interpretation is provided in which the principles of IT governance and COBIT 2019 have been identified.

5.1 Encourage an expansion of communication and foster opportunities for dialogue

The analysis revealed the initial theme, the importance of communication and dialogue for digital transformation, which is also highlighted in Tonelli et.al., (2017). The conceptual model for IT Governance functions as a maturity model for assessing the communication abilities of a public sector organization. When compared to the works of Hiererra et al., (2020) and Braga (2020), findings from this study similarly point to a lack of understanding of the various components, such as organizational structure, procedures, information, policies, culture, behaviors, infrastructure, services, and applications, and their potential contributions to IT governance (See Figure 2). This lack of understanding hampers the organization's ability to effectively utilize these components and create a cohesive IT governance framework. Consequently, there is a need for a more comprehensive explanation of how these components can be leveraged to enhance communication and involvement with employees during digital transformation initiatives (Hiererra et al., 2020; Braga, 2020)

In the analysis of the results, several of the abovementioned components were identified. The outcomes indicate that various elements, such as information, policies, culture, behaviors, and structure, are all important for IT governance. The findings suggest that the organization's structure lacks complete development when it comes to delegating tasks and responsibilities. This could potentially explain the existing uncertainty surrounding the duties of everyone. This goes hand in hand with the obstacles mentioned by Magnusson and Lindroth (2023) in their research on digital transformation in the public sector. The obstacles raised are that digital initiatives are negatively affected by the difficulties of having a coherent strategy for digital transformation.

Furthermore, the conceptual model of IT governance includes a relationship mechanism that develops communication between those involved in information technology in the organization (Tonelli et al., 2017). All participants agree that effective communication holds immense significance in motivating organizations to embrace digital solutions. They emphasize the necessity of two-way communication to enlighten leaders about the

need for additional time to grasp new digital solutions. Trust-building is considered a vital outcome of communication, as unanimously acknowledged by all Participants. Trust in the organization is important for relationships to form an organizational culture where employees feel safe (Prodromou and Papageorgiou et al., 2022).

Research indicates that there is a specific gap in assessing the progress of using IT governance as an approach to implementing digital transformation in the public sector. A contributing factor to this is the lack of research on the topic (Tonelli et al., 2017; Kafel, et al., 2021). As per the discoveries, the individuals involved opine that it does not fall under their purview as employees to ascertain the essential IT requirements (Tonelli et al., 2017; Kafel, et al., 2021). Conversely, some researchers believe that the higher authorities alone hold the authority to make decisions, leaving no space for employee involvement. (Tonelli et al., 2017; Kafel, et al., 2021). The processes in COBIT 2019 can serve as a guide in different areas of the organization and the clan culture is a comfortable environment that allows communication where employees share knowledge. Such a work culture is said to have a positive effect on the attitude and mindset of employees toward cohesion (Amin, 2020).

5.2 Involving staff members to diminish skepticism and resistance to change

The second theme highlights that VGR, like many other public sectors, has a hierarchical structure in place, granting higher-level managers early access to information compared to others. The findings reveal that a distinct 'silo mentality' prevails, with individuals primarily focused on their groups and holding their own beliefs and theories. The findings revealed that several employees feel disregarded in the decision-making process, further highlighting the hierarchical and siloed nature of the organization. Consequently, this dynamic can have an impact on both the effectiveness and orderliness of the organization (Amin, 2022). The internal culture of the organization is noticeably influenced by digital transformation, as new methods of work and communication channels continue to emerge (Iveroth, Lindvall, & Magnusson, 2018).

The analysis of the findings also reveals that there are varying interpretations of digital transformation and its implementation. Open communication promotes opportunities in the work environment to be open and share knowledge and experiences with colleagues (Amin, 2022). Studies have shown culture has a positive effect on employees' ability to maintain their interest and commitment to the organization, which is related to their attitude and approach to teamwork (Amin, 2022). This was reflected in the findings, as some participants perceived it as being about digital technology and solutions, while others viewed it as a means for business growth and development. The perception of

digital transformation within an organization can be divided, depending on the individual's role and position. The connection between ethical conduct and digital transformation seems to be established, as evidenced by its inclusion in COBIT 2019 as one of its components (Hiererra et al., 2022).

The findings further suggest that the organization possesses various negative attitudes that hinder the ability to adopt new systems and modify work methods. Opponents of digital transformation fail to recognize its potential to enhance operations and discover novel approaches to work. Instead, they perceive it as rendering them obsolete in the professional realm. This is where participation comes in, as it can reduce their resistance. When employees are engaged from the beginning, comprehending the advantages becomes less challenging for them. Not all Participants agree with this perspective, indicating that it may be linked to the organizational culture, which is a part of the IT governance framework and model that focuses on human behavior and culture. Additionally, Herrera et al., (2022) and Braga (2020) highlight that ethics, culture, and behavior of individuals within the organization are among the components.

The COBIT 2019 framework can aid in establishing a positive culture within an organization that is grounded in ethical values and principles (Braga, 2020). The results of the study indicate that individuals' perspectives on sharing knowledge and information are shaped by their cultural backgrounds. The findings highlight that without the opportunity to contribute and engage in critical thinking, it becomes difficult to bring about change. This lack of involvement can lead to feelings of discouragement among those excluded, whereas those in positions of authority may experience a greater sense of inclusion. (Braga, 2020).

According to Cruz-Cárdenas et al. (2018), success factors for digital transformation in an organization are based on certain key principles. The participants unanimously agree that organizational attitudes play a significant role in shaping their approach toward change. To take one example, certain work groups have a lot of doubt and pushback when it comes to implementing new digital solutions, a resistance arising from both attitudes and interpersonal dynamics.

The findings illustrated in this theme align with Braga (2020), who asserts that fostering a positive workplace culture requires ongoing effort. Additionally, one Participant notes that there are stubborn pockets of resistance that may be rooted in a lack of transparency regarding the reasoning behind certain tasks. Prodromou and Papageorgiou (2022) describe the beliefs and values that shape the actions of employees, determining their success or failure in reaching organizational objectives, which is what the text explores.

5.3 Prioritization of time and resources is flawed

This theme concerns employees' perceptions of how management manages the availability of time and resources. The interpretation of the two models for IT governance in digital transformation and one for deficiencies in public IT governance and their impact on digital transformation (Mulyana, Rusu and Perjons, Rusu and Perjons et.al., 2021; Lindroth et.al., 2023) shows that resources are not prioritized as statistics are only considered for efficiency. There is a high potential to increase efficiency with IT, but instead, it leads to a conflict with the organization's digital transformation goals. The conceptual model of IT governance includes IT performance, which deals with the organization's IT infrastructure to achieve, as far as possible, qualitative service levels and budgets linked to organizational objectives (Tonelli et.al., 2017).

According to Salman (2020), the COBIT 2019 framework offers insights into the principles of digital transformation. This study acknowledges that APO07, an element concerning human resources, can be used with success to align individuals' skills and roles within the organization. In this endeavour, COBIT functions as a practical roadmap for implementing the mapping process. Time and resources are two of the most important factors in achieving the goal of delivering high levels of service and quality (Salman, 2020). The findings indicate a deficiency in both time and resources, hindering employees from embracing new digital solutions and altering their work methods. Additionally, employees are deprived of the opportunity to receive training on crucial digital tools necessary for their roles.

The process APO07 can be applied to digitalization by generating new innovative ideas and strategies are needed to ensure that organizations have the resources and time to devote to learning new things (Salman, 2020). The establishment of IT governance is vital in laying the foundation for digital transformation and the operational strategies that steer it forward. (Qassimi and Rusu et. al 2015). This is an international problem for which there is no developed solution yet. Several Participants mentioned that a lack of time and resources makes it difficult to implement the necessary changes.

5.4 Needs should be the driving factor instead of the digital solution

According to Salman (2020), COBIT 2019 provides processes that can assist organizations in implementing digital transformation by establishing structures and processes. In the public sector, this typically involves optimizing workflows using digital solutions. The IT governance model for digital transformation illustrated in Figure 2 includes components within IT governance mechanisms that impact the advancement of digital transformation. One of these components, as described by Tonelli et. al (2017), is referred to as relationship mechanisms. The findings suggest a lack of progress in creating

effective channels of communication between the administration, intermediate managers, and end-users, impeding their ability to comprehend each other's needs.

The outcome revealed an excessive focus on digital solutions, neglecting the true needs of the organization. Therefore, it is crucial to adopt a strategy that prioritizes meeting organizational objectives by addressing their specific requirements. IT governance plays a crucial role in shaping organizational strategies, making it an invaluable asset. To progress further, one can utilize the process element of COBIT 2019. This element comprises a well-structured series of actions to attain goals (Herrera et.al 2022; Braga, 2020; Qassimi and Rusu 2015).

5.5 Bureaucracy and Legal Aspects Hinder Visions

According to the findings, the implementation of digital transformation in an organization can be hampered by a rigid bureaucracy, legal considerations, and a need for heightened security measures. One of the key obstacles is the proper classification of information within the systems. To address the security aspect, the COBIT 2019 framework's APO013 process can be utilized to guide information security management during the digital transformation process (Salman, 2020). Process APO07 focuses on the realm of human resources, specifically targeting the identification of individuals possessing the ideal traits for specific positions (Salman, 2020). Recognizing the multitude of people involved in different aspects of change proves advantageous for the organization, enabling the implementation of the IT governance model as a means of oversight the results show.

5.6 Explication of approaches for determining the course of action

Hiererra et al., (2020) and Braga (2020) argue that the constituents play a crucial role in enabling an organization to establish a well-functioning IT governance framework. In the results, several of the components have been identified as information, policies, culture, behavior, and structure. The findings reveal a certain level of immaturity in the organization's structure regarding the allocation of responsibilities and tasks. Despite having a leadership position that connects decision-makers and organizations, some Participants feel excluded from the decision-making process. Their perspective revolves around the notion that their role is limited to adhering to instructions, without any opportunity to contribute or participate in the initial phases of decision-making.

Many individuals in positions of leadership serve as intermediaries between decision-makers and organizations. However, despite their role, they often experience a sense of detachment from the decision-making process. They perceive themselves as mere recipients of instructions, rather than active Participants from the outset. Two Participants shared their sentiment of powerlessness after a decision had been reached. Salman (2020)

describes the digital transformation processes an organization must go through. The challenge of adapting to digital transformation is a common topic of conversation among employees and many workers are resistant to changing their ways.

One aspect of the process pertains to the realm of human resources. The COBIT objective (Salman 2020) offers guidance on how an organization can strategically plan for its present and future staffing needs, as well as the required skills and competencies. Numerous Participants highlighted a significant scarcity of resources in their day-to-day operations, which in turn hindered their ability to allocate sufficient time for addressing the changes brought about by digital transformation.

A potential solution to tackle this issue is for leaders and managers to conduct a thorough analysis of how to overcome the resource shortage, thereby granting individuals more time to focus on other tasks. By progression in the implementation phase, which involves identifying organizational problems and opportunities, and subsequently mobilizing the available resources, progress can be made. All Participants unanimously conveyed a shared sentiment of lacking clear directives and experiencing confusion regarding their responsibilities, leading to heightened feelings of uncertainty.

5.7 Access to the right information

This theme deals with participants' perceptions of the need to have access to the right information. The findings highlight several challenges brought up by participants, such as that management must provide information to end users, although they acknowledge that this can be difficult. Another related key challenge is the importance of ensuring that information flows smoothly and comprehensively throughout the organization. This process can pose a challenge since it involves testing information and then passing it on through a designated point of contact within the management hierarchy. The Participant clarifies that they are obligated to follow this specific protocol. Additionally, ensuring accurate information and data within systems is crucial. Participants highlighted their responsibility in addressing information security concerns in their organizational support role.

6. Discussion

In this part of the thesis, the objectives and inquiries of the study are addressed. The results are first summarized and synthesized, and thereafter interpreted and analyzed about theory and related research. Subsequently, the discussion section delves into the study's limitations and a concluding reflection on ethical and methodological considerations. Lastly, a proposal for future research on this topic is put forth.

6.1 Result discussion

The purpose of this study was to investigate whether there are factors in the organizational culture that create a gap between management, managers, and employees in how to benefit from digitalization during the digital transformation with IT Governance. The participants' experiences, needs, and attitudes towards digital transformation initiatives and leadership would provide answers to this. Encouraging employee participation in digital transformation can be a difficult task due to the nature of change, which can impede progress towards digitalization. Research indicates that a range of organizational factors are critical to achieving the goals of digital transformation initiatives within an organization.

This solidifies the credibility of the research conducted on IT governance and COBIT 2019 within the study. It is intriguing to contemplate how these theoretical principles can serve as a practical roadmap for organizations embarking on the digital transformation journey. As a researcher, gaining insight into the primary focus of the findings has proven valuable. The central theme revolves around organizational culture, stemming from the elements of COBIT 2019. These elements encompass culture, ethics, and behavior, and guide individuals in translating these behaviors into their daily activities. This serves as evidence of its reliability.

The models for IT Governance provide a holistic illustration of all the components and strengthen their existence. Understanding the potential deficiencies in IT governance within the public sector has been immensely beneficial, thanks to the "Shortcomings" model and the model highlighting crucial factors in digital transformation. This understanding has greatly facilitated the research process in identifying the shortcomings that have emerged from the results of this study.

In the context of the organizational environment, there is a particular lack of maturity in how management and employees responsible for digital transformation initiatives communicate. However, to dig further into this topic, a more extensive study with a larger number of participants, particularly end users, would have been necessary.

For managers and supervisors, effective communication and dialogue play a crucial role in engaging employees in the digital transformation. By fostering trust and addressing skepticism, they can prevent negative attitudes toward change. To succeed in the healthcare industry, every individual within the organization must be actively involved in this initiative, rather than solely relying on the efforts of management.

Leaders should enhance their listening skills, and understanding of the needs of others, even when they are not directly stated. In the present era of abundant digital platforms, this issue should not pose a significant challenge. It is interesting to speculate whether it is related to the organization's culture that shapes people's attitudes and approach to interaction. In the realm of establishing security and fostering trust, an unequivocal strategy outlining actions and responsible individuals has proven to be of utmost significance.

The ability of management to communicate digital transformation is a crucial factor in the success of digital transformation. Collaboration is needed to jointly manage the changes brought about by digital transformation. However, difficulties arise when there is a lack of time and resources for employees to embrace the changes brought about by the implementation of new digital systems. To manage change successfully, mobilization is needed to gain the strength to get through it.

Once a change has been put into action, it becomes imperative to evaluate its advancement and the time it has saved. Clear communication about expected results and responsibilities is essential to embrace change. However, things have changed in the present scenario, and now employees are filled with apprehension. Employees need to know what direction is coming from management. One reason for a lack of trust in management is their failure to comprehend the requirements of the organization.

When we redirect our attention from digital solutions and instead prioritize understanding the true needs at hand, it becomes significantly easier to discern the intended direction. For digital transformation to occur, businesses must recognize the need for it and initiate the process. Only when every employee takes accountability for their actions and contributes their ideas instead of doubting the current situation will this become achievable. The implementation of plans and concepts can be hindered by administrative procedures and legal considerations, such as the categorization of data that demands increased security measures. Getting information to reach from management to employees closest to care is a major challenge. When a vital individual acts as a middleman, the transmission of information becomes more intricate.

In the realm of collaboration, it is evident that leaders do not design a system exclusively for their benefit, but rather envision how it should function. Regrettably, there appears to

be an excessive emphasis on status and financial gain. Management needs to pull the handbrake more often and look beyond politics and prestige. Simply looking at statistics as efficiency does not improve cooperation between managers and employees.

6.1.1. Interpretation of the results

Digitalization refers to when organizational, process-related, and cultural changes occur in the interaction between employees, citizens, and authorities (Fischer 1999). The focus of this research is on the interplay among top-level executives, mid-level managers, and frontline staff in healthcare. The culture of an organization plays a crucial role in the adoption of digital technology to achieve digital transformation by shaping employee attitudes and beliefs (Papageorgiou, 2022).

Based on the results of the study, there are several barriers to the progress of digital transformation, which are largely related to internal and external communication. The conceptual model for IT Governance for the public sector can be used to help organizations achieve efficiency, performance, and communication at various levels (Qassimi and Rusu, et al., 2015). The findings indicate that the organization suffers from notable communication deficiencies, causing delays in disseminating information to all members.

Tonelli (2017) argues that the relational mechanism can be considered a vulnerability, as communication takes place at different levels in a hierarchical structure. The conceptual model positions the IT governance mechanism as the framework for decision-making. The organization lacks any proof of currently implementing this model, as it operates under a management system that is under the control of leaders in various positions, both politically and bureaucratically. It would be intriguing to carry out a trial examination within the organization, using the conceptual model and digital transformation processes outlined in COBIT 2019, to observe the outcomes that arise.

The findings reveal a notable capacity for enhancing effectiveness within organizations, with statistics emerging as the key area where efficiency holds utmost significance. These results align with the notion that the public sector places primary emphasis on quality, efficiency, performance, and transparency (Tambotoh et al., 2017). It means the outcome can be applied broadly, allowing multiple public sector organizations to understand the factors that impact digital transformation collaboration. This finding may prompt organizations to view these factors as areas for improvement in their digital transformation efforts. Utilizing COBIT 2019 components could aid in this process.

By utilizing the conceptual framework for the public sector, began by examining the elements that have proven to impact cooperation for the organization's digital

advancement. We then proceed to chart the interconnections between the mechanisms, procedures, and frameworks for decision-making within the organization (Tonelli, et al., 2017).

6.2 Methodological discussion

Their prior experience with conducting interviews ensures a high level of proficiency in this area. The researcher's commitment to adhering to the collected data may have influenced the data collection process to some extent. I have been able to effectively convey to the participants how the study impacts credibility in the research field. The existing knowledge, derived from personal background, education, and expertise, played a role in shaping the interview questions and guiding the discussions.

However, it was challenging to remain unbiased and avoid preconceived notions about the interview outcomes. While the quality of the questions is generally good, some may be the participants and were slightly too intricate. There was a large interest in participating in the study, and the participants were positive to contribute to the study, as the topic of digital transformation was considered timely and relevant. However, limited time constraints necessitated the selection of individuals possessing the knowledge and expertise relevant to the research area. Some people who showed interest were therefore excluded because of the lack of time. Participants were able to feel in control of the interview as they were able to correct misconceptions and misunderstandings in the questions that were considered more complex.

The topic of the interview made the participants feel that they could contribute expertise in the field and that their perspective is important for further research in the field. Due to time constraints, neither the participants nor myself as the interviewer had the opportunity to review the complete interview transcript together. To ensure a comprehensive understanding, individuals with diverse roles were intentionally chosen, allowing for triangulation and a multifaceted examination of the problem. Their varied roles provided a valuable breadth of insights throughout the research journey.

The interview guide features questions that possess striking similarities, suggesting an awareness of their constraints. The interviews were transcribed and imported into Nvivo 12 software for subsequent analysis. Transcribing approximately 100 pages of content proves to be a laborious and time-consuming endeavor, particularly about coding. In retrospect, it would have been better to code each interview immediately after it had been transcribed, rather than waiting until all the interviews had been completed. The participants were not given response options to choose from; rather, open-ended questions were employed, enabling them to delve into the topic. Nonetheless, a few of the questions could have been worded differently or combined, as they shared similarities.

The theoretical parts in sections 3.1 and 3.2 described the models of IT governance in digital transformation and IT governance gaps in the implementation of digital transformation. The analysis clearly showed that these models are well-founded and a parallel can be found with the results of the study. The way the questions were formulated did not facilitate a comprehensive grasp of the matter at hand, a circumstance that could have been addressed differently upon reflection. Given that this was an inductive study, there was no pre-established collection of theories to adhere to.

Employing a deductive approach grounded in theories would have been more suitable. In hindsight, the interview questions were well-suited for extracting information relevant to the research inquiry. With the study adopting an inductive approach, there were no preconceived theories in mind. However, the findings eventually gave rise to the formulation of an accurate theory. Before conducting the interviews, the theories and research questions were unequivocally defined, giving the impression that the study revolved around digital solutions within the organization.

Lastly, I will revisit and critically discuss the trustworthiness of the study, according to the criteria outlined by Bryman (2012), and how they were applied to this study, as described and explained in the method section (see section 3.4).

Transferability involves studying a smaller group of individuals who share certain characteristics that contribute to qualitative results. The ten people interviewed shared the same interest in ongoing digitalization work and digitalization initiatives at VGR. They had different character traits and different social preferences that were characterized by some talking a lot about the questions while some of the participants answered the questions briefly and concisely and nothing more. The results are still transferable because it is possible to use the same questions on other groups working towards the same goal.

The research is centered around a venture that engaged actual staff members from a substantial public sector entity. The task of collecting feedback on the employees' encounters and requirements regarding digital transformation and leadership can be difficult given the organization's magnitude. Thus, it is vital to consider their perspectives and apply the discoveries to comparable scenarios in different organizations. Additionally, other organizations can utilize the interview guide employed in the research to comprehend the distinctive setting of their work. The outcomes are trustworthy as they derive from the accounts disclosed by the participants, rather than any potential prejudices of the researcher.

Credibility The results are credible because it is possible to conduct the interviews via other channels than just on-site. This creates more opportunities for those involved to

manage their own time from the most suitable location. In retrospect, it can be concluded that it was the right choice of method because it provided a credible result in capturing employees' experiences, needs, and perceptions of digital transformation and the role of leadership in it. The method allowed their emotional expressions and attitudes to set the tone for their responses. To enhance the credibility of the results, semi-structured interviews were employed as a qualitative approach to tackle the research question in social contexts in the organization.

Dependability in this study all because the questionnaires are scientifically based which means that the results are also based on a scientific foundation. The results can be trusted because all data in the form of recordings and transcripts are stored securely so that no unauthorized person has access to the data. The interviews were conducted using impartial inquiries to avoid singling out participants. This was considered a good starting point in the management of the data collected. Also, to ensure their responses couldn't be traced back to their role or statements during the interviews. To attain a satisfactory level of *confirmability* adopted a scientific approach as a researcher by not interfering with my values but taking the approach as a researcher.

Authenticity is considered to have been achieved because it was important from the beginning to select participants who had different perspectives in different roles in the organization VGR. With different perspectives, they could contribute to a depth of understanding of the problems that could be identified in working with digitalization initiatives.

6.3 Limitations of the study and suggestions for further research

The study was conducted using a qualitative method in the form of a case study in a Swedish healthcare organization. It was not feasible to include more Participants because the limited time frame-imposed constraints on the study and forced a restriction on the number of individuals who could be interviewed. While there was a desire to expand the Participant pool, the logistics of managing the transcriptions for a larger group of ten individuals proved to be overwhelming. It would have been interesting to interview more people who work in health care, but there was not enough time.

Finding articles specifically about Cobit 2019 proved challenging within research articles. However, material was abundant on digitalization, IT Governance, and organizational culture, making it easier to locate relevant articles that could address my research inquiries. I had no trouble coming across numerous articles discussing digitalization, IT Governance, and organizational culture. These topics provided an abundance of material, allowing me to narrow down my focus to those articles that could effectively address my research inquiries. The study is constrained by the scarcity of research on IT governance in the public sector, particularly in healthcare. Additionally, the recent release of COBIT

2019, the latest version, contributes to the lack of extensive research. Limitations also arise in examining the different components and principles of IT governance frameworks and COBIT 2019.

Therefore, research needs to continue to be done so that healthcare organizations can develop their digitization work with the support of IT governance and process principles in COBIT 2019. Research can focus on the practical aspect, involving healthcare professionals who have firsthand experience working in an organization. To enhance future research, it is suggested to expand the study by including a greater number of Participants from the healthcare sector who can offer insights from within the organizations. It would have been intriguing to include a greater number of end users in the study, but time constraints restricted this possibility. Nonetheless, the study did involve one healthcare professional, prompting speculation on the potential outcome if all Participants had possessed a healthcare background.

This work could explore the components and principles of the two frameworks in more depth. One suggestion is to conduct a field study with observations of different groups of healthcare professionals. This could be complemented by a quantitative method to collect statistics on different parts of the topics of IT governance, COBIT 2019, and digital transformation. One suggestion is to go even deeper and develop a process template assessment tool, which would then be used in a field study in an organization to access all the design principles and components.

The thesis also provides practical implications. The recommendation for further work is to follow the IT governance model for digital transformation according to De Haes and Van Grembergen (2009). Likewise, to follow the model *shortcomings in the public sector of IT Governance* by Magnusson and Lindroth (2023) to work bit by bit on the shortcomings that slow down development. The COBIT 2019 model can be used in the development work as a governance framework to identify key components.

Recommendations for individuals utilizing the theoretical basis and findings of this research involve initially crafting a customized conceptual framework for IT governance within their organization. Subsequently, they should analyze the digital transformation's impact on the strategies and processes within IT governance and make corresponding adjustments. Continue the process of mapping the activities with the components of the COBIT 2019 framework, and then move on to process implementation for digital transformation. Take a thorough examination of the model's various implementation stages to chart your current position and future direction in the digital transformation expedition.

7. Conclusion

The purpose of this study was to investigate whether specific factors within the organizational culture of a healthcare organization in Sweden create a gap between management, managers, and employees to benefit from digitalization during the digital transformation journey with IT governance as a supporting factor. Seven themes were derived from the analysis of the results, describing key challenges for IT Governance in digital transformation.

The initial theme focused on the significance of effective communication and open dialogue. This is crucial in conveying the advantages of new endeavors to the organization and transforming them into reality. *The subsequent theme* emphasizes the importance of involving and engaging employees to mitigate any skepticism or uncertainty surrounding digital initiatives within the organization. *The third theme* highlights the concern among healthcare professionals that leaders fail to prioritize time and resources for their learning of new digital solutions.

The fourth theme examines the potential lack of clarity in how staff perceive management's ability to articulate their plans for implementing digital initiatives and their intended timeline. *The fifth theme* emphasizes the necessity for the business to prioritize the needs of employees to enable them to effectively carry out their responsibilities, rather than solely focusing on the availability of digital solutions. *Theme six* addresses the challenges posed by bureaucracy and regulations in the implementation of digital ideas and initiatives. Finally, the seventh theme in this study emphasizes the importance of access to information.

More specifically, in answering the first research question, the identified discrepancies related to digital transformation are largely influenced by the specific context and organizational culture in which individuals find themselves. Attitude plays a major role in how an upcoming change due to digitalization is received and accepted or not. Skepticism can be prevented if there are opportunities to be involved in what is happening around digital transformation and where we feel we can make a difference. If communication does not go all the way through the chain, so that information stops along the way, it creates feelings of frustration and resistance to change. Instead, management needs to provide motivation, which increases the willingness to learn new things.

The answer to the second research question is that IT governance can help organizations navigate the digital transformation process by establishing processes and structures. The implementation of IT governance models can help guide organizations toward successful digital transformation, as organizational culture shapes the behavior and readiness of employees to adapt to change. A positive attitude is crucial in receiving and embracing upcoming changes, such as those brought on by digitalization. Important factors that

contribute to organizational culture include attitudes, cooperation, participation, ownership, communication, and the ability to share information with employees at all levels. COBIT 2019 can be utilized to facilitate digital transformation by identifying various components such as organizational structure, policies, culture, infrastructure, and applications.

In sum, the findings suggest that there exists a gap between top management, middle managers, and employees that may hinder successful digital transformation. The conclusion from this thesis is that several components of organizational culture were found to impact the advancement of digital transformation in healthcare and that IT Governance can provide guidance in supporting organizations to achieve successful digital transformation.

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Appendix A: Interview guide

Interview Questions

Background questions

What is your role and what do you do? Can you tell us briefly what a typical working day looks like?

What is your role in the introduction of IT?

Experience in digitalization

- What is your experience with digitalization? Can you give an example of when you have been involved in a digitalization project, such as the introduction of a new IT system? Could you tell us a bit about it?
 - What was the basis for the introduction/change?
 - What worked well? What worked badly? Why?
 - What were the main challenges according to you?
What does the concept of a digital solution mean to you?
What is your role in getting new digital solutions?
(What would make you start using the new solution?)

Guidelines and the role of Management in digitalization

- What are the guidelines that you must follow in your profession regarding digital transformation? Are you familiar with [NU healthcare/VGR's] digitalization policy?
- How do you see the role of management in digitalization? In terms of leading, implementing, and organizing the business for digital change.
 - How can management build trust with employees when implementing digital change?
 - Immediate superior, hospital management? Please describe your own experience.
- How do you see your own/staff role?
- (What are the internal forces in the organization that can hinder the success of digital transformation?)

Implementation process and needs

- What is the process from decision to implementation?
- What shortcomings do you think there are in an implementation process?
- How is this process evaluated?
- What are the requirements of the organization when introducing digital technologies?
- How is it ensured that these requirements are met in the organization?

Assistance and support

- How is the need for **digital** change identified in organizations?
- How are employees involved in the process of digitalization? How? Can you describe how employees are involved? Please give examples
- How to create the conditions to prepare organizations for the change?
- What conditions do you think are in place to prepare organizations for the change?

Closure

- Is there anything we have not covered during the interview that you would like to add?

Appendix B: Consent document

Hello, my name is Mimmi Purmonen and I am currently working on my master's thesis in informatics I am reaching out to ask for your assistance in my research. Specifically, I am looking to interview around ten individuals who have been involved in some capacity and have been impacted by the implementation of digital solutions in organizations within the Västra Götaland region.

To provide some context, I am a student at University West, enrolled in the IT and business development program. For my thesis, I am collaborating with the Group Staff Digitalization, which is currently undertaking a project to implement the Microsoft Power platform. My focus is on exploring the challenges associated with establishing effective IT governance that aligns with leaders' decisions regarding digital transformation and the actual needs of the operations in terms of digitization. The purpose of the research is to analyze and map the needs, experiences, and perceptions of employees about decision-making during the introduction of digital solutions in the operations of Region Västra Götaland.

I am reaching out to you because you are an individual of interest for this study. However, the decision to participate is entirely up to you. The interview is expected to last approximately 60-90 minutes and your responses will solely be utilized for this study. To ensure efficiency for all parties involved, the interviews will be conducted through Teams, which has proven to be the most time-effective option. To transcribe the interviews accurately, it is necessary to record them. However, please be aware that as a Participant, you have the autonomy to terminate the recording at any point and you also have the right to access the recording if you so choose. The interviews have been scheduled to occur within the timeframe of week 16-17. If you are interested in taking part, kindly respond to this email with a suggested time.

By the way, I wish you a nice day.

Thank you in advance!

Mimmi Purmonen

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