



Department of Applied IT

# **Relating Integrative Capabilities and Institutional Logics to Digital Transformation**

A case-study of a public sector organization

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# Abstract

Digital transformation represents a process of disruptions caused by digital technologies, and not only is reconfiguration of technologies required, also of business operations, management concepts and structures. Two factors have been found in literature to have, in each aspect, a relation to digital transformation, namely, Integrative capabilities and institutional logics. Integrative capabilities reflect shared understanding and knowledge within an organization, and represent the capacity for firms to engage in effective communication as coordination of activities, objectives and investments across divisions. Institutional logics are rules taken for granted and determine how organizations and individuals act, and how history and heritage might affect the choices and abilities to reconfigure. This study examines how integrative capabilities and institutional logics relates to digital transformation. In order to do so, the relation between integrative capabilities and digital transformation, the relation between Institutional logics and digital transformation, and the relation between integrative capabilities and institutional logics is explored. Thus, a conceptual framework is created to describe the three relations. A qualitative method was used by conducting a single case-study of a public sector organization delivering IT-services. Data was collected through 11 semi-structured interviews, and 14 obtained steering documents from the organization. Findings acknowledge that integrative capabilities and institutional logics have a strong relationship to digital transformation, hence the current process of digital transformation at the public sector organization is affected by these relations in an adverse way. The framework of this study enlightened the importance of coordination for both integrative capabilities and institutional logics, in order to establish shared and comprehensive understanding across the organization.

**Keywords:** Digital Transformation, Integrative Capabilities, Institutional Logics, Public sector

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# 1 Introduction

Digitalization is changing industries as well as the way people live their lives, it has enabled networking, collaboration and communication between organizations and people around the world (Meier, 2017). This in turn has created new consumer needs and preferences, business opportunities and new technologies. Hence, affected organizations and put pressure on them to constantly adapt to changing environmental conditions, in order to stay competitive (Yoo, 2010; Hinings, Gegenhuber, & Greenwood, 2018).

Digital transformation has therefore, taken more space in the literature of organizational management over the past decades (Yoo, 2010). Further, Vial (2019) argues that digital transformation represents a process of disruptions caused by digital technologies, which in turn affect organizations to strategically adapt and respond by changed paths of value creation. By this promoting that technology adoption is not the only factor to consider, as digital transformation rather requires organizations to reconfigure business operations, management concepts and structures (Matt, Hess & Benlian, 2015; Yoo, 2010; Vial, 2019). By the same token, Helfat and Campo-Rembado (2016) advocate that organizations must respond to the changing conditions by considering unexploited market needs, new technologies and change in customer preference, this by ensuring the ability to adapt. Teece, Pisano and Shuen (1997) also argue that organizations need to constantly adapt to stay competitive within the business environment of changing conditions that are faced today. However, scholars stress that organizations operating in public and private sector, not necessarily have the same competitive mindset (Pang, Lee & DeLone, 2014; Choi & Chandler, 2015; Campbell, McDonald, Sethibe, 2010). Hence, make public sector organizations not as fast in adapting to changing conditions compared to private ones, which in turn has generally identified public sector as lagging behind in digitalization (Bason, 2018). Pang et al. (2014) further highlight the absence of profit-seeking rationale within public sector organizations and that political or bureaucratic nature plays a greater role. Thus, primary focus is rather put on public value than profits and performance (Pang et al. 2014; Choi & Chandler, 2015).

Due to nonprofit-seeking rationale, Pablo, Reay, Dewald and Casebeer (2007) advocate that it becomes even more important for public sector organizations to put focus on strategic choices, in order to seize opportunities posed by digitalization. By the same token, Teece et al. (1997) promote the importance of strategically enable dynamic capabilities, as they provide the ability to sense, seize and transform opportunities and threats in the environment (Teece, 2007). Dynamic capabilities refer to the ability of adapting, integrating and structuring external and internal resources, skills and functions to fit needs created from a changing environment (Teece et al. 1997). However, recent studies have argued that in order to stay competitive and in the loop within these changing conditions, organizations must put emphasis on Integrative capabilities (IC), as the heart of dynamic capabilities (Helfat & Campo-Rembado, 2016; Liao, Kickul & Ma, 2009; Teece, 2007). IC have over the last two decades been introduced within research, thus before only referred to as skills and competence of an organization (Helfat & Raubitschek, 2018). Further, IC are also characterized as the ability for firms to internally integrate along its value chain and across organizational units, in order to absorb and

assimilate internal and external opportunities (Helfat & Raubitschek, 2018; Helfat & Campo-Rembado, 2016).

Matt et al. (2015) and Vial (2019) state the importance of changing and adapting business operations, management concepts and organizational structures to seize and benefit from digital transformation. However, it is also argued that in order to do so one must consider behavior and action of an organization, often identified as Institutional theory (Greenwood, Raynard, Kodeih, Micelotta & Lounsbury, 2011; Boonstra, Eseryel & van Offenbeek, 2018). Hence, organizing principles within a firm are the basis of rules which are taken for granted and the guide to actors' behavior. Thus, described as an organization's Institutional logics (IL) (Reay & Hinings, 2009; Boonstra et al. 2018). As, IL determine how organizations and individuals act, but also its history and heritage which might affect their choices and ability to reconfigure, they are an important factor to consider in relation to digital transformation (Reay & Hinings, 2009; Boonstra et al. 2018; Teece, 1997). Townley (1997) presents that public sector organizations tend to be in situations of financial dependencies, as resources being centralized with limited alternatives, as well as goals and outputs are ambiguous. Therefore, it is important to study the effects of IL within public sector. The cultural dimensions, values, beliefs, social mechanisms are a few characteristics of IL that have been discovered to have distinct impact on organizational and individual behavior (Reay & Hinings, 2009; Boonstra et al. 2018; Friedland & Alford, 1991; Thornton & Ocasio, 2012; Powell & DiMaggio, 1991).

Helfat and Campo-Rembado (2016) further argue that a limited amount of prior research has focused on studying IC within a firm. Even though many scholars, such as Helfat and Raubitschek (2000) and Teece (2007) have discussed and examined IC, its specified elements, and IC's support within a firm has not achieved extensive study (Helfat & Campo-Rembado, 2016). By the same token, Pablo et al. (2007) highlight that even though dynamic internal capabilities are promoted as of potential for public sector organizations, there is limited attention put to it by previous literature. The situation for IL is comparable, as the public sector is possibly affected by IL but little has been researched in this area (Townley, 1997; Greenwood et al. 2011). Institutional theory is according to Thornton and Ocasio (2008), a subject of extensive research where IL has become a buzzword. However, Boonstra et al. (2018) and Reay and Hinings (2009) argue for the importance of understanding the organizational and individual behavior through IL in order to transform, which has to be further explored in academia. Hence, Warner and Wäger (2019) stress that there is lack of conceptual studies which explore how and what factors relate to digital transformation, thus they highlight the limited scholars of building IC for digital transformation.

Therefore, this study aims to examine how IC and IL relate to digital transformation. Thus, we will study the relation between IC and digital transformation and the relation between IL and digital transformation. In order to gain deeper insights, the relation between IC and IL will also be examined. The question this study aims to answer is as followed:

*How are integrative capabilities and institutional logics related to digital transformation within a public sector organization?*

We will next provide a background of related work, considering dynamic capabilities and IC, followed by the literature of IC within public sector. Further, the concept of IL will be presented, followed by its role within public sector organizations. This, provides a theoretical grounding

for this study and will be summarized in the section Conceptual framework, where a model of the three relations is presented. Next, we will present the reader with our research setting followed by our methodology. The result of qualitative in-depth interviews and organizational documents will then be illustrated, followed by our analysis and discussion including answers to how IC and IL relate to digital transformation within a public sector organization. The used literature will shed light on the relations between IC and digital transformation, and IL and digital transformation. Hence, we hope that our empirical study also will highlight the relation between IC and IL. Based on this, we will draw conclusions and present propositions based on our findings.

## 2 Related Work

The literature of digital transformation is varied depending on its perspective. This study tends to explore how IC and IL are related to digital transformation within the public sector. Therefore, this section will present related work of the concepts, however start with an overview of digital transformation in relation to capabilities and logics.

### 2.1 Digital Transformation

Digital transformation is described by Vial (2019) as a process where disruptions are created by digital technologies. This in turn, is argued to trigger organizations' strategic responses to change paths of value creation, while managing organizational barriers and structural changes which influence both negative and positive outcomes of the process (Vial, 2019). To stay competitive it requires transformation of fundamental business operations, management concepts and organizational structures (Matt et al. 2015). Hence, it is argued for a digital transformation strategy to be formulated with integration of prioritization, implementation and coordination of digital transformations within an organization. Vial (2019) indicates for such a strategy since technology alone is only a component of the complex puzzle and it is important to integrate organizational structure, processes, and culture. By the same token, Warner and Wäger (2019) argue that digital transformation is not only about technology, but rather about strategy, indicating that top management is important, in order to find new business models that optimize new customer experience. According to Hinings et al. (2018), digital transformation is the effect of several digital innovations leading to novel actors, practices, structures, beliefs and values, that change, replace, complement or threaten existing rules of the game within fields and organizations. Often are old business models and cognitive representations held onto and therefore, it is argued that IL are fruitful to study within digital transformation (Hinings et al., 2018; Mangematin, Sapsed & Schüßler, 2014). Hinings et al. (2018) identify three novel institutional arrangements demanding for digital transformation; digital institutional building blocks, infrastructures, and digital organizational forms.

According to Korhonen and Halén (2017), new IL and efficient response at organizational level are required for digital transformation. Zimmermann, Schmidt, Sandkuhl, Jugel, Bogner and Möhringer (2018) are aligned with the thought since digital transformation has a crucial impact on our lives in terms of how we communicate, collaborate, learn and work. In order to sense and seize market opportunities as well as reconfigure the business to get aligned with shifting value propositions, it is required to attain dynamic capabilities, specialized resources and more flexibility for change (Korhonen & Halén, 2017). Tiwana and Kim (2015) stress the importance to distinguish the competitive weapon for success when seizing opportunities, as it is not IT itself but the agility to use IT, that matters. Depending on how governance of IT is set up, namely, in which department IT decisions are made, IT is able to be exploited for strategic agility in different scale. An alignment between IT and business functions is needed, since not all IT decisions are made by the IT department, and therefore, call for studies within IC (Tiwana & Kim, 2015).



## 2.2 Dynamic Capabilities

Due to changing conditions in the environment of today, organizations face challenges of global competition. Hence, technology opportunities, consumer needs and market pressure for innovation have resulted in organizations' need for alternative ways in which to alter competitive advantage (Yoo, 2010). Teece et al. (1997) suggest the dynamic capabilities approach as a strategy for organizations to adapt and stay competitive within changing environments. Teece et al. (1997) refer to 'dynamic' as the ability to achieve congruence with changing environment and capacity to renew organizational competences. This, in order to respond to innovation, as the rapidly changing technologies and markets require timing. Moreover, 'capabilities' represent the ability to adapt, integrate and reconfigure external and internal skills, resources and functions, to fit the needs of a changing environment (Teece et al. 1997). Dynamic capabilities are then described as an organization's "ability to integrate, build and refigure internal and external competences to address rapidly changing environments" (p. 516, Teece et al. 1997). Thus, dynamic capabilities is an organization's capacity to alter new and innovative competitive advantage, depending on its position in the market and path dependencies (Teece et al. 1997). Further, Helfat and Campo-Rembado (2016) describe capabilities as organizations' capacity to "carry out an activity on a repeated basis in a reliable fashion" (p. 252). Hence, Liao et al. (2009) advocate that dynamic capabilities provide organizations with the ability to respond to changing market circumstances, thus create new business propositions.

In order to better understand the concept of dynamic capabilities, Teece (2007) pins it down and divides them into three groups of activities, categorized as, sensing-, seizing- and transforming- capabilities (Teece, 2007; Warner & Wäger, 2019). First, sensing capabilities represent a firm's ability to identify threats and opportunities in the environment, thus constantly scanning its external environment for unexploited market needs, new technologies and change in customer preferences. Hence, monitor threats of competitors and innovative entrants (Teece, 2007; Helfat & Campo-Rembado, 2016). Second, seizing capabilities define the capacity to mobilize resources in order to address the spotted opportunity, hence capture value from it (Teece, 2007). Yeow, Soh and Hansen (2018) further argue that seizing capability is critical, as it provides the ability for an organization to act upon the spotted opportunity. Further, it involves the activities of designing, committing and selecting among options (Yeow et al. 2018). By the same token, Liao et al. (2009) highlight that this creates possibility for the firm to align resources and opportunities. The last category identifies transforming capabilities, which represent an organization's actions to continuously renew itself. Hence, involving refiguring of organizational resources, such as restructuring of departments, revamping routines and alignment of assets (Yeow et al. 2018).

Further, Helfat and Raubitschek (2018) continue Teece's (2007) general categorizing of dynamic capabilities, by presenting three capabilities within the general categories, which are important for the sensing, seizing and transforming activities. They identify the importance of (1) Innovation capability, (2) Environmental scanning and sensing capability, and (3) Integrative capability. Innovation capability represent an organization's capacity to both seize and refigure new innovations, hence help throughout investigation of emerging technologies by promoting research personnel. Scanning and sensing capability refers to the organization's continuous work of scanning and sensing opportunities and threats. Last, Integrative capability (IC) is argued to contribute to all activities within sensing, seizing and transforming, hence it

is one of this study's main focus and will be presented next (Helfat & Raubitschek, 2018). Thus, one can connect this to IT capability which in turn describe an organization's ability to deploy resources of IT, in combination with an organization's overall resources. Nwankpa and Roumani (2016) suggest IT-capability as an organization's complexed package and IT-related resources, which in turn has the opportunity to coordinate activities. Hence, sheds light on the characteristics of IC (Helfat & Raubitschek, 2018).

## 2.3 Integrative Capabilities

As a dynamic capability, IC reflect shared understanding and knowledge within an organization, thus, IC are argued to be the heart of dynamic capabilities (Liao, et al. 2009). Further, IC represent the capacity for firms to engage in effective communication in order to enhance the coordination of activities, objectives and investments across divisions and production (Helfat & Campo-Rembado, 2016). The authors describe that the routines of communication and coordination are strengthen in common codes within the firm, which originates from shared understanding and enable the pros of IC. However, when defining IC, Helfat and Raubitschek (2018) stress that IC can represent either dynamic capabilities or operational, depending on if they are directed for strategic change or towards ongoing operations' maintenance. Thereby, IC towards strategic change are defined as *Integrative capabilities*, which this study will focus on. Moreover, Liao et al. (2009) suggest that IC are concrete representations of dynamic capabilities, which provide the ability for organizations to absorb, acquire and assimilate external and internal knowledge. By the same token as scanning capabilities, IC scan an organization's external business environment in order to retrieve business opportunities (Helfat & Raubitschek, 2018). Thus, IC that support external relationship coordination include an alliance capability, which in turn makes it possible for coordinating investments, activities, resources and objectives, internally as well as with alliance partners (Helfat & Raubitschek, 2018). In order to retrieve desired external collaboration with alliance partners, it is important to acknowledge an organization's routines and skills, as they are the grounds for good alliance capabilities. Hence, for those to be effective it is suggested by Helfat and Raubitschek (2018), that dedicated teams are in charge of selecting partners, thus working closely to accomplish the set objectives and mutual goals.

IC further involve the capacity of understanding internal resources' potential and limitations, hence allow the activity of matching resources and opportunities (Liao et al. 2009). IC also represent benefits such as, letting go of undesirable resources and competences, and holding on to valuable ones. Thus, embracing new routines and potential resources (Liao et al. 2009). This is also highlighted by Maijanen, Jantunen and Hujala (2015), who define IC as the higher-level capabilities that makes it possible for organizations to overcome the gap between the resources at present and the ones desired. Moreover, it is argued that IC are essential for any given organization which is in the center of its ecosystem, as these organizations tend to face the challenges of capturing value. IC are therefore stressed to be useful, as their implementation provide organizations with the ability to seek for collaboration with different stakeholders such as, suppliers and complementors. This in turn, contribute to the opportunity of effectively capture as much value as possible (Helfat & Raubitschek, 2018).

In order to implement effective IC, Helfat and Campo-Remado (2016) stress that middle managers play important roles, as they usually are the ones responsible for coordinating cross-unit and cross-functional collaboration and integration. By this token, Helfat and Raubitschek (2018) state that internal integration across divisions and teams is proven to be useful for internal innovation, as communication and coordination between the divisions are facilitated. Thus, Arnello, Rebolledo and Tao (2019) argue that coordination efforts result in benefits of effective learning and internal innovation. Further, Helfat and Raubitschek (2018) suggest, that by implementing routines for internal coordination and communication, IC achieve support, hence cross-functional collaboration between divisions and teams are to be facilitated (Helfat & Raubitschek, 2018). This, is also highlighted by Pablo et al. (2007) who propose that cross-functional teams within organizations play an important role for development. Hence, the authors suggest that IC facilitate the collaboration of cross-functional teams. Cross-functional teams is further described by Warner and Wäger (2019) as an enabler for digital transformation as it tends to build and strengthen IC. Thus, middle managers' engagement can further enhance the relationship between teams (Pablo et al. 2007).

### 2.3.1 Integrative Capabilities Within the Public Sector

Even though, research have argued that IC are of advantage for organizations in order to seek new opportunities and limit threats, hence coordinate activities, resources and objectives across divisions and functions (Helfat & Campo-Remado, 2016; Helfat & Raubitschek, 2018), scholars highlight differences between organizations operating in private- and public sector (Pang et al. 2014). Public sector organizations generally operate in a business environment which include absence of profit-seeking rationale, as they rather aim for enhanced public value. Hence, political or bureaucratic nature plays a greater role within public sector organizations (Pang et al. 2014). As public sector organizations' primary focus is not profit-seeking motives, Pablo et al. (2007) argue that strategic choices have become an increasingly relevant focus. Hence, internal IC have come to play a greater role. By this token, Pang et al. (2014) affirm that in order to develop, public sector organizations need to not only seek for competences and coordinate internally, also, collaborate and align competing interests with partners. Thus, coordination of resources and activities between stakeholders promote enhanced public value, which in turn connects to Helfat and Raubitschek's (2018) theory that IC enhance the ability to increase value creation, through collaboration with different stakeholders. As mentioned above, Pablo et al. (2007) suggest that cross-functional teams enables development within public sector organizations as IC are activated. However, in order for this to work the authors highlight the importance of leadership and trust, as that have been shown to facilitate the effectiveness of IC. Particularly, Pablo et al. (2007) stress that leadership at middle organizational level can reconfigure relationships between different groups of workers, which serves the development of new levels of trust within public sector organizations. Hence, trust and engaged leadership can contribute to effective IC, thus in turn facilitate digital transformation (Pablo et al. 2007).

## 2.4 Institutional Logics

To explain actions of organizations and individuals, the most dominant perspective nowadays is institutional theory (Greenwood et al. 2011; Thornton & Ocasio, 2008). The reaction of organizations and individuals to institutional expectations and prescriptions is the focus of the theory. Glaser, Fast, Harmon and Green (2016) as well as Hinings (2012) highlight that the perspective of IL is built upon a multiple level theoretical model, that demonstrate the relationship between micro-level arrangements (e.g., social interaction and individual actions) and macro-level arrangements (e.g., organizational practices). Further, IL are explained by Reay and Hinings (2009) to provide organizing principles within a field, being the basis of rules that are taken for granted and guide to the field-level actors' behavior. Powell and DiMaggio (1991) and Boonstra et al. (2018) describe that the approach of IL holds the focus of how social action both are enabled and constrained by the institutions' cultural dimensions. IL are the definition of organizing principles that characterize how authorized actors shape, claim and constrain the possibilities of field level actors' behavior (Boonstra et al. 2018). Hence, it sets the criteria for efficiency and effectiveness. IL could further enable to disclose the latent sociocultural mechanisms in order to determine the consequences those may have on the organization's IT performance. Townley (1997) emphasizes the construction of IL through historical experiences and institutionalized practices, which generally compose standardizing models of organizational legitimacy. These norms and assumptions shape action separately from immediate organizational or individual interests. Furthermore, Reay and Hinings (2009) stress that the theoretical construction of logics is important due to their help of explaining connections that constitute a solidarity within an organizational field and the sense of prevailing purpose. Hence, a dominant institutional logic organizes the organizational fields, even though, at the same time, several IL exist. When understanding institutional change, logics are important since a change in the dominant logic of the field is fundamental to image the institutional change (Reay & Hinings, 2009).

Greenwood et al. (2011) further explain IL to be normative expectations and rules that are taken for granted, thus being compelled by organizations to conform. Moreover, according to Glaser et al. (2016), IL serve as socially shared arrangements at macro-level, whereas when moving towards micro-level, the more or less different logics are available, salient and accessible depending on the situational cues. However, by coercive, normative and mimetic mechanisms, the diffused structure, practices and beliefs are emerged, which induce a certain behavior adopted by organizations, thus in turn can be connected to organizational culture (Greenwood et al. 2011; Friedland & Alford, 1991; Thornton, Ocasio & Lounsbury, 2012). By this same token, Warner and Wäger (2019) argue that culture is an important factor for an organization to digitally transform, however management should not try to replace historical values, rather refresh corporate culture by engaging in new digital initiatives. This, in order to develop digital mindsets (Warner & Wäger, 2019).

Furthermore, Greenwood et al. (2011) describe coercive mechanism representing a government's mandate that affects the structure and behavior of an organization. Normative mechanisms are generally derived from the society at large and professionalization, which compel organizations to coordinate with expectations from other actors in its environment and make sure to gain their approval. Lastly, other organizations' rewarding practices are imitated by organizations due to the mimetic mechanisms. Accordingly, structures, practices and beliefs are not institutionalized until they are taken for granted. Therefore, influences on the

sensemaking, mobilization processes, and decision-making, form organizational practices (Glaser et al. 2016). This in turn, affect the macro level at the evolution of cultural IL, as well as refocus and reinforce the individual attention at micro level. Decision-making is further discussed by Warner and Wäger (2019) who suggest that the ability for an organization to make fast decisions plays an important role within digital transformation.

Moreover, Thornton and Ocasio (2008) highlight that “the institutional logics approach offers precision in understanding how individual and organizational behavior is located in a social context and the social mechanisms that influence that behavior” (Thornton & Ocasio, 2008, p. 22). According to Boonstra et al. (2018), literature includes mainly two types of IL, namely, managerialism and professionalism. The first mentioned regards the ‘business like’-management, whereas the second entails for task professionalism. For example, medical professionalism within hospital institutions (Reay & Hinings, 2009; Boonstra et al. 2018). However, literature lack in research about IT professionalism as an institutional logic, which recognizes the IT profession-related logics’ role in IT governance (Boonstra et al. 2018). It is important to be in control, hence, IT should be reliable, available, compatible, secure, and maintainable. According to Greenwood, Suddaby and Hinings (2002), the process of institutionalization is described as a two-stage process; 1) Professional associations participate in activities directed by an institutional order, and 2) Institutions participate in actions or activities toward creating new institutions or changing old ones. Hence, new institutional practices, via this kind of duality of action, are not created from the beginning but are built upon institutional practices of older shape that push back or replace prior institutional forms (Greenwood et al. 2002). However, Teece (1997) asserts that the choices about domains of competence are influenced by past choices. At any given point in time, firms must follow a certain trajectory or path of competence development. This path not only defines what choices are open to the firm today, but it also puts bounds around what its internal repertoire is likely to be in the future. Thus, firms at various points in time, make long- term, quasi-irreversible commitments to certain domains of competence (Teece 1997). Hence, Arellano et al. (2019) argue that employees’ history of routines, social exchange and collaboration, affect the actual information sharing and their ability of joint decision-making at present.

### 2.3.1 Institutional Logics Within the Public Sector

IL of democracy is described as “participation and the extension of popular control over human activity” (Friedland & Alford, 1991, p. 248), which on one hand the organizations of the public sector enact upon (Friedland & Alford, 2019). On the other hand, Ngoye, Sierra and Ysa (2019) argue for three types of IL in the public sector; the market-managerial logic, the public administration logic, and the profession logic. These logics are universal in the public sector, and especially the last mentioned since it put emphasis on the specific knowledge, profession, autonomy and expertise of the professional (Thornton et al. 2012). Hence, “service rendered is regulated by professional bodies and its quality is subjected to peer opinion, rather than the dictates of the professional’s employer” (Ngoye et al. 2019, p. 6). Moreover, the public administration logic is based upon procedure, strict accountability and rules, where hierarchy and top-down bureaucracy characterizes this logic. However, the market-managerial logic is more about results and targets regarding resource allocation under managerial discretion to achieve the results. Thus, hallmarks for this logic is competitiveness, result-based performance and competition underpinned by effectiveness and efficiency. In conclusion, those within the public sector applying a public administration logic ended up using

performance measurements (such as decision-making, communication, learning, improvements, strategy management) for strategic alignment and planning, whereas those who applied a professional logic tended more likely to use performance measurements for learning (Ngoye et al. 2019).

The government can be identified as an institution of coercive logic (Townley, 1997; Greenwood et al. 2011). According to Townley (1997), the government can directly enforce organizational models or make use of a more profound pressure to conform. It may then be followed by mimetic variety when organizations copy the patterns to gain the similar rewards. Also, the normative mechanisms may pursue when the organizing methods become authorized by professionals in successful organizations within the public sector. Accordingly, coercive IL tend to occur in situations of financial dependencies, resources being centralized with mainly limited alternatives, and where goals and outputs are ambiguous. Public sectors are described to often be in similar situations to these, and therefore, the coercive logic may occur in a larger extent here than in the private sector (Townley, 1997). However, Khan, Xuehe, Atlas, Khan, Pitafi and Saleem (2017) highlight the fact that changing the top-level management is proven to be effective for several types of organizational change. From a public sector's point of view this is more likely to happen on a regular basis since the political environment change frequently. Some argue that it is difficult to maintain and implement long term changes in organizations operating in the public sector due to this. However, the positive side of new executives weighs heavier as it promotes for changes in organizational learning, knowledge transfer, new cognitive assumptions and models, and rearrangement of current organizational values. According to the study performed by Khan et al. (2017), IL and IC affect the public sector as superior organizational performance is dependent on knowledge, culture and leadership.

Accordingly, the importance of IL in digital transformation has been argued by scholars, where culture, rules, principles and historical events play valuable roles. By the same token, different mechanisms, professionalisms and logics are fundamental to prosper digital transformation (Warner & Wäger, 2019; Boonstra et al. 2018), and this will be taken into account of the conceptual framework.

### 3 Conceptual Framework

To aid in analyzing how IC and IL relate to digital transformation, theory presented in previous sections have formed a framework which will be used (see Figure 1). Helfat and Raubitschek (2018) advocate that internal integration across teams and divisions is useful for internal innovation, as coordination and communication between functions are facilitated. The capability of coordinating cross-functional teams within organizations also plays an important role for development (Pablo et al. 2007). Hence, this assumes a relationship between IC and digital transformation, representing “relation 1” (Figure 1). Vial (2019) and Boonstra et al. (2018) further stress that the behavior of an organization and its employees is distinct for digital transformation, thus changes in strategy and structure are not possible if IL are blocking. Hence, this facilitates the assumption of a relation between IL and digital transformation, “relation 2” visualized in (Figure 1). This in turn, frames the proposition of the relationship between IC and IL, which in turn might relate to digital transformation.

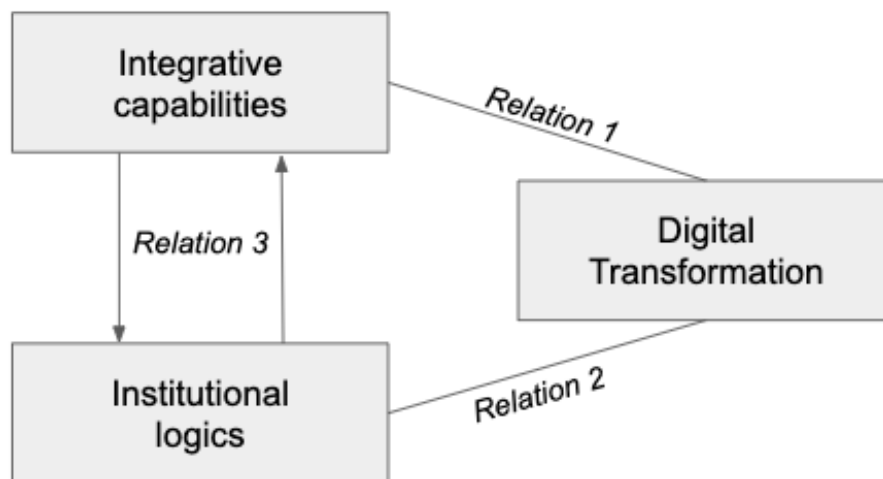


Figure 1. The Conceptual Framework of study

The model shown above visualizes how the above mentioned assumptions constructed from previous literature are related to each other. Hence, suggesting that IC and IL are not completely separated factors related to digital transformation, as they might affect and relate to one another, thus have a relation to digital transformation (Boonstra et al. 2018, Helfat & Raubitschek, 2018; Vial, 2019; Pablo et al. 2007).

#### 3.1 Integrative Capabilities and Digital Transformation

Digital transformation triggers organizations to develop new strategies and manage structural changes (Vial, 2019), hence it is argued by Helfat and Raubitschek (2018) that IC is an important factor in order to do so and to stay competitive within a changing environment. Promoting IC is stressed as an advantage for organizations to seek new opportunities and limit threats, thus by coordinating activities, resources and objectives across divisions and functions (Helfat & Campo-Rembado, 2016; Helfat & Raubitschek, 2018). Theory presented by Pang et al. (2014) further argue that organizations especially in public sector might benefit

within digital transformation by implementing IC. This, as development facilitates if they both seek competences and coordinate internally, as well as collaborate and align competing interest with partners. Helfat and Campo-Remado (2016) identify that middle managers play important roles for implementing IC that enhances digital transformation, as they usually are the ones responsible for coordinating cross-unit and cross-functional collaboration and integration. Helfat and Raubitschek (2018) affirm the same theory, including internal integration between teams and functions tend to enhance internal innovation. For the relationship between IC and digital transformation (relation 1) to affect organizations, Pablo et al. (2007) connect to the theory posed by Helfat and Campo-Rembado (2016) about middle managers, by highlighting the importance of trust and leadership. Hence, trust and engaged leadership can contribute to effective IC, thus facilitate development (Pablo et al. 2007).

### 3.2 Institutional Logics and Digital Transformation

The behavior of an organization and its employees are distinct in the matter of digital transformation, as change in strategy and structure are not possible to be made if IL are blocking (Vial, 2019; Boonstra et al. 2018). As previously mentioned, the institutional theory is the most dominant theory when explaining actions of organizations and individuals (Greenwood et al. 2011). Therefore, the relationship between digital transformation and IL is coherent, since prior business models and mindsets may hinder transformation of organizations and individuals (Hinings et al. 2018). Reay and Hinings (2009) and Boonstra et al. (2018) declare the importance of cultural dimensions, values, beliefs and rules taken for granted to be examined in an organization, in order to understand the behavior itself and of individuals. Hence, determine the consequences those may have on the organization's IT performance. "Digital transformation is without doubt, institutional change" (Hinings et al. 2018, p. 55), and logics are important since a change in the dominant logic of the field is fundamental to image the institutional change (Reay & Hinings, 2009). In order to enhance digital transformation, it is suggested by Hinings et al. (2018) to attain the three institutional arrangements; digital institutional building blocks, infrastructure, and digital organizational forms. Thus, the institutional theory invites research on how new forms are developed, how they are dispersed, and how legitimacy is gained (Hinings et al. 2018).

### 3.3 Integrative Capabilities and Institutional Logics

IL are described by Reay and Hinings (2009) to provide organizing principles, being the basis for rules and routines that are taken for granted, thus guide actors' behavior. As Boonstra et al. (2018) further argue, IL can both enable and constrain social action. Hence, this relates to Helfat and Campo-Rembado's (2016) theory, describing that routines of communication and coordination are strengthened in common codes. Thus, organizations with common codes can facilitate IC, as integration between divisions and functions is proven to contribute to internal innovation, hence enhance development (Helfat & Campo-Rembado, 2016; Helfat and Raubitschek, 2018; Warner & Wäger, 2019). Arellano et al. (2019) further highlight that historical routines of collaboration and social exchange affect the ability for organizations to engage in information sharing and joint decision-making. This connects to Helfat and Rembado (2016) above mentioned theory, which in turn might enhance organizational



development and transformation (Reay & Hinings, 2009; Helfat & Campo-Rembado, 2016). Further, Warner and Wäger (2019) stress that culture including underlying behaviors and routines needs to be continuously refreshed to enhance digital transformation, however, in order to do so, internal integration and collaboration needs to be facilitated. Hence, by engaging cross-functional teams to promote innovation and digital mindset across divisions of an organization (Warner & Wäger, 2019; Pablo et al. 2007).

## 4 Method

In order to investigate and answer the research question, a single case-study was conducted, as it is appropriate when a phenomenon or unit is studied in-depth, which generates an understanding of the case itself (Given, 2008; Yin, 1994; Yin, 2011). The case study took place between January to May 2020, in collaboration with a municipal unit in Sweden. Lapoule and Lynch (2018) argue that a case study is suitable when investigating organizations in some detail, as it offers the opportunity to explore the individual case and draw conclusions which can widen understanding of the phenomenon (Given, 2008). Further, Gerring (2004) describe a case study as an intensive study of a single unit, in which aim to understand a larger class of similar units. Hence, Yin (2011) stresses that case studies represent the process of evaluation. Yin (2011) further describes that, a case study includes the “desire to derive an up-close or in-depth understanding of a single or small number of cases, set in their real-world contexts” (Yin, 2011, p. 4). Thus, it is highlighted that a case study is suitable when investigating complex phenomenon or real-world examples, related to examples such as organizational change. Case studies will then offer the establishment of deeper understanding (Yin, 2011; Given, 2008). By the same token, Darke, Shanks and Broadbent (1998) argue that the case-study method is beneficial when establishing a deeper understanding of the interaction between IT-related innovations and organizational context. Connecting to our study, the investigation concerns a municipal unit in Sweden, which is currently working to digitally transformed, hence interested of how different factors can relate to the process. We selected case study as research method firstly for the reason, that it tends to focus on investigating a phenomenon in-depth within its natural context, meaning that we can examine the research question within the specific organizational context (Darke et al. 1998; Given, 2008). Secondly, as IC and IL in relation to the process of transformation, has not had prior extensive research, it might not be enough with a solely collection of data such as, interviews. Hence, a case-study allows for a combination of data collection techniques such as, interviews, documents and text analysis, which makes the method relevant for this type of study (Yin, 1994; Darke et al. 1998). In our case the data collection of documents and text analysis represent steering documents and consulting reports gathered from the municipal unit itself, to supplement the conductive interviews. Hence, this will contribute to a deeper understanding of the proposed relations between IC, IL and digital transformation.

To answer the research question, an exploratory research design was used. This, as it provides the opportunity to create a framework within a topic with little or no previous studies conducted, thus relates to the topic chosen for this study (Bell, Bryman & Harley, 2019). The design includes the benefit of using flexible techniques, such as case studies or observations. Furthermore, a paradigm of interpretivism was used since the research philosophy was to explore a phenomena by the use of qualitative research data rather than statistics and quantitative research (Bell et al. 2019; Collis & Hussey, 2014). Therefore, an inductive approach was applied as it is based upon general conclusions, derived from empirical observations, that originates from a particular perspective and transforms into a general one (Bell, Bryman & Harley, 2019). According to Saunders, Lewis and Thornhill (2016), the qualitative strategy encompasses data in more elastic, complex and mixed form since it is reliant upon social interaction, which fits this study of IC, IL and digital transformation. Thus, a research with quantitative strategy would not yield in the necessary depth that has previously

been described nor the insight of actors' opinion of the current situation regarding IC and IL (Yin, 2011; Hennink, Hutter & Bailey, 2011).

## 4.1 Research Setting

The case organization chosen for this study is a municipal unit within the public sector, located in Sweden. Due to matters of trust and competitive conditions, we will respect the municipal unit's choice of being anonymous, thus it will be referred to as Municipal unit A from now on. Municipal unit A is a middle size organization, with the main purpose including the supply of IT- services to its clients. The municipal unit A investigated provides support and services for the delivered systems, hence maintenance (Municipal Unit A, 2020). The municipal unit was chosen due to its central position within the public sector and its relevant business purpose, including decision-making of common tools and standardized work operations, common IT-support and development for its clients (Municipal Unit A, 2020). Municipal unit A is today responsible for the contribution of developing the city as whole by planning, coordinating and preparing IT-services (Municipal Unit A, 2020). Accordingly, it also contributes to digitalization of the city, hence give them a focal role of city development. Over the last years, Municipal unit A has worked to develop a strategy, in order to digitally transform itself, thus contribute to decisions taken for city development (Municipal Unit A, 2020). Due to Municipal unit A's work of coordinating services and development by collaborating with committees and boards within the functions of the city, it is a suitable case for exploring IC (Liao et al. 2009). Hence, by operating in the center of their city's public sector, which generally is more characterized by IL (Townley, 1997) makes it suitable for this study. In order to answer the research question for this study, we acquired steering documents from Municipal unit A to get a deeper understanding of their current state, organizational structures and strategies, as a complement to interviews which will be elaborated next.

## 4.2 Data Collection

In order to establish a deeper understanding of the selected organization's current situation, primary data was collected from in-depth, semi-structured interviews (see paragraph 4.2.2). The original source, hence interviewees, generates the primary data as the secondary data is unable to give all the answers for the research question (Ghauri & Grønhaug, 2010; Collis & Hussey, 2014). The benefits of the primary data include the reliability, accuracy, validity and consistency it brings forward as it is from an original source, specifically chosen for this subject (Ghauri & Grønhaug, 2010). In order to get fundamental insight of the Municipal unit A's current state, secondary data was gathered through steering documents provided by the unit itself (see paragraph 4.2.1). This kind of data is mainly gathered for other purposes, however, it still contains valid information and can be beneficial for this kind of study as it saves time for the researchers in question (Johnston, 2017). Thus, as the time for this project is limited, only collecting primary data would not lead to the scope of insights gathered from secondary and primary data in combination (Sörensen, Sabroe & Olsen, 1996). Therefore, the leverage of secondary data is not only time and cost savings, but also the additional or distinct knowledge and insight it provides to the topic (Ghauri & Grønhaug, 2010; Saunders et al. 2016; Johnston, 2017). Furthermore, the data collection process was achieved when additional data would not

provide notable impact or further insights on the results (Hennink et al. 2011). Hence, the collection of primary and secondary data was halted when the theoretical fullness was completed, and the preliminary analysis were initiated of the gathered data (see paragraph 4.3).

#### 4.2.1 Steering Documents

As mentioned, we were given access to Municipal unit A’s steering documents and analyses, in order to establish an overall understanding of its organizational structure, strategy and current state. The documents accounted for Municipal unit A’s mission, regulations of use concerning IT-services, strategies for city as whole and Municipal unit A itself, digital mission and strategy, thus principles of operations, structures and infrastructures (see table 1). The documents were provided both by our contact person at Municipal unit A, and retrieved from their official website, as some were of public access. In total we accessed 14 steering documents and analysis, hence contributing to our overall understanding of Municipal unit A’s current state and principles (see table 1). Thus, the analysis documents further provided us with background knowledge, including prior challenges, mission and strategy, which in turn gave us relevant insights of their path dependencies (Magnusson, Juiz, Gomez & Bermejo, 2018). Hence, the steps and initiatives taken so far, in order to digitalize and transform (Internal document 3, 2019). The analysis in turn, provided knowledge of a consultancy firm’s work for the municipality in question to enhance digitalization across the overall organization and between municipal units. Hence, further strengthen that the Municipal unit A is a suitable case for this study considering the ability to integrate across functions (Helfat & Campo-Rembado, 2016; Helfat & Raubitschek, 2018).

<b>Steering document</b>	<b>Description of document</b>	<b>Accountable</b>
1	Rules of IT	City
2	IT policy and principles	City
3	Status Analysis	Municipal unit A
4	Regulations IT-security	City
5	Operational rules of IT	City
6	IT in time	City
7	Description Digital Workplace	Municipal unit A
8	Strategy Digital Workplace	Municipal unit A
9	Architectural principles	Municipal unit A
10	Principles of IT usage	Municipal unit A
11	Information of incidents	Municipal unit A
12	Principles Decision-making	Municipal unit A

13	Development instructions	City
14	Model for Development	Municipal unit A

*Table 1. Obtained Steering documents*

Moreover, the steering documents and analysis made the planning of primary data collection easier as knowledge of background and current digital strategy and organizational structure, contributed as a tool when interview questions were elaborated. Due to the native language of the municipal unit in question, all steering documents and analysis were in Swedish. Important insights, and specific words were therefore translated to said language in order to keep accuracy and relevance for this study.

#### 4.2.2 Interviews

Primary data was gathered through in-depth, semi-structured interviews with actors of Municipal unit A (see Table 2). This, because of the ability to retrieve profound insight of the topic and the interviewees' viewpoint (Bell, Bryman & Harley, 2019; Bryman & Bell, 2011). Hennink et al. (2011) describe interviews of semi-structure to be a beneficial method as it collects data from the interviewees' own opinion, perception of events, and experienced stories. In order to get enriched answers, the larger part of the questions were open-ended, although with some key questions to be answered. Bell et al. (2019) state the superiority of open-ended questions as the interviewee is given the ability to describe situations and events in more specific forms. Probing questions were applied in order to obtain further revealing answers, for example "explain more about..." or "provide us with other examples of ...". However, the ethical perspective was always in mind, hence, no questions were stated which forced the interviewee to publicly criticize or oppose the unit or colleagues (Hennink et al. 2011).

<b>Interviewee</b>	<b>Role</b>	<b>Area</b>
A	Operations Manager	Education, Health & Social care
B	Operations Manager	Human Resources
C	Operations Manager	Communication, Management & Governance
D	Operations Manager	Service Management
E	Head	Service Management
F	Operations Manager	Finance & Purchasing
G	Director	Municipal office
H	Chief Financial Officer	Finance & Economy
I	Head	Communication
J	Operations Manager	Information Technology

K	Chief Digital Officer (CDO)	Municipal office
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*Table 2. Participating interviewees*

The interviews were planned to be conducted face-to-face at Municipal unit A, however, due to restrictions of the ongoing Covid-19 pandemic the interviews were conducted over phone or Google Hangouts, which approximately took half an hour up to an hour per interview. The interviewees were therefore in their home environment, hence in their natural habitat, which was beneficial as it increased the chance of them feeling more comfortable (Hennink et al. 2011). However, the ability to read body language and facial expressions were lowered or absent for both the interviewers and interviewee. Moreover, the interviews were conducted in Swedish, the corporate language of Municipal A, in order to avoid misunderstandings or misinterpretations. Therefore, quotes used in this study were translated to English. Recordings and notes from interviews were taken for the sake of transcribing, which was performed directly afterwards by the interviewers as the memory is argued to be the strongest at that point in time (Hennink et al. 2011).

### 4.3 Data Analysis

The key purpose of data analysis is to gain understanding from collected data (Ghauri & Grønhaug, 2010). Haig (2018) further argues that data analysis includes procedures and techniques for interpreting results of data, hence planning and gathering of data to make the analysis easier. Here, the raw data is managed, meaning obvious flaws have to be discovered by the researchers, for example through transcribing the primary data collected from the interviews (Bell et al. 2019). The inductive strategy of data analysis involves the development of codes which represent reviewing data, recognition of issues and reflection upon its meaning (Hennink et al. 2011). Hennink et al. (2011) further argue for the extreme value of deriving codes directly from data as it displays the issues of importance to the participating interviewees themselves. Hence, data is allowed to 'speak for itself' with these codes, which in turn is fundamental for qualitative data analysis (Hennink et al. 2011).

#### 4.3.1 Steering Documents

In order to gain a deeper understanding of Municipal unit A, internal organizational documents were as mentioned collected. Coffey (2014) argues that organizational documents can bring important insights about an organization, as they tend to inform about structure and organizational-, thus social- practices. Further, Elo and Kyngäs (2008) stress that in order to gain insights and analyze this kind of data, one must read them through several times, thus on different occasions. The documents provided were therefore read by both of us, on different occasions in order to not miss valuable insights (Coffey, 2014; Elo & Kyngäs, 2008).

To start, the 14 provided documents were divided and organized, to identify their purposes, hence making it easier to start the data analysis. By this token, Johnston (2017) suggests that one should evaluate the purpose of data, in order to identify its suitability for the intended study. Further, Haig (2018) stresses that an option of evaluating data, includes the act of screening the documents, as it enables researchers to assess the suitability for the study. The internal organizational documents provided were read through, considering the research question of this study as a guideline (Harris, 2001). In order to evaluate the content of the 14

documents, we conducted a content analysis. Here, an inductive content analysis was chosen as the aim for this study is not to test a theory (deductive analysis), rather it is argued that there is not enough knowledge about the relationship, which is intended to be investigated. Hence, an inductive analysis is recommended (Elo & Kyngäs, 2008). However, in order to do so, we started to read the documents through to establish an understanding of what has been studied before (Harris, 2001; Burla, Knierim, Barth, Liewald, Duetz & Abel, 2008). We made notes and headings when reading, as it is suggested that this so called 'open coding' will guide the creation of categories (Elo & Kyngäs, 2008). The notes and heading were then read through again to select necessary headings as descriptions of content, which in turn generated coding sheets. From this, we could create categories. Elo and Kyngäs (2008) highlight that by creating these categories, researchers can easier gain insights from the analysis, as classification of categories tend to give words and phrases same meaning. Thus, we created the categories from the 'open coding' act, hence on the basis of the above mentioned theory, concerning IC, IL and digital transformation. As we wanted to find patterns of organizational structure and culture between the organizational documents, we categorized insights focusing on decision-making processes, collaboration between units and efforts toward change. In order to achieve consistency when analyzing the content of the organizational documents we discussed and read through the categories and all codes together, as a comprehensive understanding is argued of importance when analyzing this kind of data (Burla et al. 2008). Further, we grouped data within categories, to reduce irrelevant knowledge, hence making it easier to generate valuable insights for this study (Elo & Kyngäs, 2008). Once we had identified three categories and 15 sub codes (see table 3), we conducted the analysis, read through the texts once more, to make sure we had not missed anything of importance. Words and sentences were then identified from texts within the 14 organizational documents and later connected to the derived categories and sub codes. This, in order to create descriptive data, which in turn could be used and elaborated within the context of this study (Basit, 2003; Burla et al. 2008; Elo & Kyngäs, 2008).

### 4.3.2 Interviews

The interviews were transcribed, and in order to discover similar attributes or flaws in the data, coding was performed (Bell et al. 2019). Coding is a thematic analysis approach, where the data are diffused into components which are given labels. The coded text is then searched across cases to see sequenced recurrences. Further, data reduction is performed to make the data manageable by the creation of themes from the coding. According to Ghauri and Grønhaug (2010), there is a type of thematic analysis called template analysis. This means that only a larger extent of data is coded before themes are created, whereas in thematic analysis all data is coded before the creation of themes (Ghauri & Grønhaug, 2010; Saunders et al. 2016). For this study the template analysis was chosen to be most suitable, since a higher level of structure was adopted in the beginning and the questions for the interview were constructed on beforehand. As stated by King (2004), the superiority with template analysis is the ability to modify the analysis throughout the time, in order for it to fit the study. Hence, not being as strict as thematic analysis. Also, it is most suitable for a single case study where a particular department or group within an organization is investigated, which is relevant since this study investigates a municipal unit (King, 2004). In order to increase the certainty of coherence and pertinence, the transcripts were read individually and afterwards compared between the researchers to discover any inconsistency or overlaps regarding the determined

themes (Hennink et al. 2011). However, it was taken into account that benchmarks within the public sector might not be valid since, e.g., the collected data might differ in content and similar concepts are defined differently. Hence, the outcomes of “same type” of projects are diverse (Bannister, 2007). To designate the research question and highlight the theme of this study, quotes were selected, and translated to English as previously mentioned (Hennink et al. 2011). Accordingly, the thematized data were analyzed in the lens of the suggested conceptual framework in order to identify how IC and IL are related to digital transformation within a public sector organization.



## 5 Results

Within this section, results from the conducted case study of Municipal unit A will be presented. The results will follow the structure of the chosen categories, created when analyzing the data. To achieve structure and consistency the results will be presented as the data analysis within the chapter of method, where content analysis from the provided Steering documents will be presented first, followed by the results from interviews.

### 5.1 The Steering Documents

The analysis of the steering documents mainly revealed that public value should be in the center of all decisions, hence strategic choices and objectives. Documents used in this analysis stretched from areas such as, Principles for IT usage, to a Digital workplace description and strategy (see table 1). Given this differentiation of documents from the municipal unit, we found that its main goals and principles towards development, collaboration and digital transformation are:

- Use information and communication in the best effective and structural way to maximize value, within and between divisions, hence in the city as whole.
- Create and coordinate principles and a common comprehensive view, in order for the municipality unit to develop together, by working together as a whole.
- Realize the importance of culture and leadership, as it plays a great role for the retention and attraction of competences at present and in the future, to secure those competences and resources.
- Make IT the enabler it has the potential to be, by making smart short- and long-term decisions.
- Acknowledge the distinct structure and mandate of foundational decisions and principles. Thus, promoting clear objectives for continuous operational development.

According to the organizational documents several initiatives have been formed to realize these principles and objectives. The municipal unit has e.g., over the last two years developed a strategy and description of what a digital workplace should infer. This, as an initiative to progress in the digitalization process, both as a single municipal unit and for the city as whole (Internal document 7, 2019). The description of this initiative raises great importance of using information and communication in an effective and structural way to maximize value of management, collaboration and analysis between divisions. Hence, create consensus of what a digital workplace could be (Internal document 8, 2019). However, communication is further highlighted within the unit's status analysis, as sometimes insufficient, especially considering implementation of new projects or digital initiatives. Hence, employees have argued that they experience the internal communication as weak (Internal document 4, 2019).

As above mentioned, culture and leadership are mentioned as enablers for attracting and retaining new and present competences, which in turn are argued of importance when creating common principles, hence development opportunities (Internal document 7, 2019; Internal document 8, 2019). Thus, Municipal unit A argue that leaders have the responsibility of continuously inform employees about routines, objectives and principles. This, is however

questioned by employees who experience an ambiguity of whom classifies as a leader of these responsibilities (Internal document 4, 2019). By this token, the status analysis further illuminates that there is a present insecurity among employees considering the process, mandates and prioritization of decisions, even though they find it clear that the decision-making process relies on managers. Hence, one can find perceived differences in knowledge of the decision-making process from division to division (Internal document 3, 2019). The decision-making process is explained by Municipal unit A as a model including eight phases and 23 steps (Internal document 13, 2017). However, the length of the process depends on the initiative or project itself, as the complexity determines requirements of documentation, hence who is considered with mandate (Internal document 13, 2017). Yet, several employees and managers agree that focus is put on structure and control, hence the process creates long lead times, which in turn might inhibit innovation (Internal document 4, 2019).

According to Internal document 2 (2019), common information structures, principles, models, routines and methods should be created, in order for IT to coordinate information around divisions. Thus, IT should be used to enhance effective service, cost efficiency and a comprehensive view of the unit and city as whole. However, it is highlighted that it is not only about the technology of use, as appropriate and valuable competences play a great role in the efforts for change.

### 5.1.1 Content Analysis

As presented in the method, we conducted the analysis of the steering documents by first creating categories and sub codes (see Table 3). These helped to discover common patterns within the documents, as several of them included common words, hence reflected the categories or sub codes established. The sub codes were further helpful to find information of value, as the steering documents did not literally mention the categories. This, in turn may be due to that the steering documents were all in Swedish, hence did not employ such words as overall descriptions. When instead screening the documents to find the sub codes, the majority of documents could be used as valuable insights and contribution to the results. The sub codes were discussed in the majority of documents, even though some occurred more than others. However, when exploring the documents closer, sub codes were discovered to represent different meaning in different situations. Innovation might for example in one document be encouraged to aim for, *“leaders should aim to develop and change operations of today, in order to meet expectations and demands of tomorrow”* (Internal document 6, 2019). Hence, respectively not a prioritization in another, where instead cost efficiency and a long-term holistic perspective are highlighted as main objectives, by e.g. describing, *“digital initiatives should be planned considering long-term and holistic view, thus by aiming for cost efficiency and effective service”* (Internal document 2, 2019). Further, communication has been portrayed differently, as it is mentioned in different contexts within documents. In one document, communication is mentioned as the most important for a governance structure, since information cannot flow otherwise (Internal document 8, 2019). However, in another document communication is mentioned as less important, since principles and standards are portrayed as the most important, reflecting that *“principles and regulations make sure that we are working towards what has been decided”*. Thus, the document argues that the most important prerequisites represent, “organization and coordination; roles and responsibilities; and resources” (Internal document 1, 2019).

The content analysis and the sub codes contributed as guiding principles when conducting interview questions. Hence, results from the analysis will be reflected in the next section, where interviewees own perceptions are reflected.

Category	Sub codes				
Integrative capabilities	Coordination/ Collaboration	Communication & Information	Competences	Culture	Value
Institutional logics	Structure	Processes	Principles	Routines	Culture
Efforts for change	Initiatives	Objectives	IT	Digital	Innovation

Table 3: *Categories and sub-codes from steering documents*

## 5.2 The Interviews

The findings discovered from the interviews revealed a unity of willingness to come forward in digital and organizational transformation, but also a divergence of how to proceed and what to focus on. In order to give the reader a comprehensive view, the categories and sub codes visualized in Table 2 will act as a guide for structure. This section will therefore be presented as follows; IC, including sub codes such as Coordination and Collaboration, Communication, Competences, Culture and Value. Hence, follow with IL including, Structure and Principles, Processes and Routines, and Culture. Thus, Effort for change will work as the lens, and represent an overview of Municipal unit A's relation to digital transformation.

### 5.2.1 A Varied View of Capabilities

To gain insights of Municipal unit A's operations and efforts towards change and digital transformation, potential IC were ought to be explored. We mainly centered the questions towards coordination, collaboration, communication and competences, as they tend to create a comprehensive view of IC as whole.

#### *Coordination and collaboration*

When asking interviewees about the collaboration within and across divisions at Municipal unit A, it first becomes clear that the perceptions are quite agreed. One Operations manager expressed that *"We are each other's resources and therefore collaboration is taken for granted"*. Further, Interviewee E continued by answering *"Absolutely!"*, when asking if *collaboration between divisions is well established*. However, when examine the collaboration further, the perceptions of interviewees tended to shift as it became visible that the collaboration across divisions and teams varied depending on the division and team in questions. Interviewee H argued that, *"There is collaboration between teams, however one can find differences between divisions and teams"*. Interviewees also stressed that collaboration is mostly found within set projects that engage different divisions and teams, hence it is not as present in daily operations. As for example Interviewee G highlighted the collaboration as follows:

*“Well, one division can order services from another division and in such form collaborate. Otherwise, I would say that collaboration more or less takes place during projects, when employees from different operations are combined, which in turn can be recognized as pools”.*

Considering the coordination between teams and divisions, we found no unified routines across the unit of who is considered with responsibility for coordinating collaboration within daily operations. This since it was presented that each division had their own operation manager and middle managers, however there were no unified role for the two, more than that middle managers reported to their operation manager. Otherwise, it tended to vary across divisions. Thus, some illustrated that middle managers had the responsibility of coordinating work and resources within their division, however not across the Municipal unit A as whole. Interviewee I highlighted that, *“there is an openness and willingness of collaborating across divisional boundaries, even though, most coordination and operations today took place within the different divisions”*. Further, another manager expressed that, *“I hear that employees across the organization would like more collaboration across different teams and divisions”*. By the same token, Interviewee J argued that even though divisions are coordinated and collaborate within projects, most operations are within the single division. Thus, the same was argued by Interviewee K:

*“One can find collaboration across divisions, however we could also be so much better within this area, especially when it comes to digitalization initiatives. More often, it is discovered that several divisions or employees tend to work with the same kind of questions. In these situations no coordination has taken place internally, rather only externally by starting off focusing only on the end-customer’s needs”.*

### *Communication*

When investigating the communication and information structure within Municipal unit A, steering documents had already established that communication and information should be used in the best effective and structural way. This, in order to maximize value between and within divisions. However, the perception of current communication structure at Municipal unit A seems to vary, depending on who gets the question. All interviewees tended to agree that overall strategy, objectives and daily information from management was communicated through the unit’s Intranet. However, it was simultaneously highlighted that the internal coordination of communication was somewhat unclear and difficult to understand. This, as it was not unified across all divisions. Interviewee B stressed that,

*“The coordination of communication across divisions is still a great challenge for Municipal unit A. The internal communication has approved and become more structured, however we have grown a lot, which in turn makes it even more difficult to control every edge of the organization”.*

Further, a couple of interviewees agreed that the communication varied depending on the role of the employee, as the coordination tended to be more intense for employees with management positions and responsibilities. The internal communication was here stressed to be of high importance, however simultaneously highlighted that it was mainly between managers. Yet, the information further reached the employees through the Intranet and through their closest managers. Considering this, Interviewee F highlighted that, *“There is*

*great communication between managers or employees within projects, thus there might be lack of direct contact with employees further down in the organization, as email and Intranet then are the primary communication tools*". It became clear that comprehensive communication such as, strategies and objectives from managers to employees were every divisions own responsibility. Hence, it was argued that the communication routines varied from division to division. Interviewee E mentioned that, *"One great challenge includes the responsibility of getting information from the top to the bottom within the organization"*.

It was further described that employees knew that they should turn to the unit's Intranet for information, however the information to be found might be too comprehensive for employees to act upon. By this token, Interviewee B stressed that, *"employees always prefer clear objectives and direction"*. Hence, the overall unified objectives and strategies that can be found at the Intranet might not be concrete enough, as each division has such different operations. Although, the majority of interviewees appointed the Intranet as the main communication channel, it was simultaneously argued that the challenge for top-down communication to succeed, might include the variation of active communication channels. This, as multiple channels might confuse, and make it difficult for employees to navigate and understand how the communication is ought to work. Interviewee E, for example described that, *"Different divisions use different channels, some use Microsoft Teams to communicate, whereas others only use emails and the Intranet"*. This in turn, created differences between communication routines around the divisions and the unit as whole. Last, it was highlighted by several interviewees that the Intranet was something which needed development and by this token, Interviewee K illustrated that:

*"There is a present infrastructure, although it might not be optimal. I want more communication than what there is today. Hence, there should be technique embedded within the Intranet, providing opportunities such as role-based content. Thus, an easy option to distribute prioritized information"*.

### *Competences*

In order to gain insights of Municipality unit A's distribution of resources, mainly focusing on competences, the interviewees were asked if they shared competences across the unit. The majority agreed that all divisions shared competencies when needed, although it became visible that the mainly shared ones internally included resources connected to, HR, communication, finance and IT. Interviewee B argued, *"Every division then build their own competences within their assigned operations. Because even though, we share competences across the unit, divisions simultaneously need unique competences, which only concerns them"*. It was further stressed by a couple of interviewees, that one can learn a lot from one another, and that the unit, needs to improve the sharing of knowledge. Interviewee E illustrated, *"The sharing of competences is important, in order to be an effective organization, not only in despite of innovation and digitalization, but for daily operational work as well"*.

Furthermore, the interviewees were asked whether or not external competences were recruited if needed. The perceptions were here slightly different, as some believed the employment and insights from external consultants were only positive, others believed consultants were sometimes employed to a too large extent, and a couple divisions argued they did not use external consultants at all. Due to that Municipal unit A is operating within the public sector, some interviewees perceived the use of external consultants as negative, since

one must always be considered of public value, thus referring to taxpayers' money. Interviewee E here stressed:

*“It is always a balancing act when deciding if the competence is needed long-term or short-term for a project. It sometimes can be difficult to recruit for long-term purpose, and then we recruit for a shorter period externally for a project or likewise.”*

Even though, it might be easier to recruit short-term, Interviewee J argued that, the amount of external recruitments is surprisingly high. Interviewee K agreed by noting, *“Sometimes we recruit a bit too much for specific projects”*. By this token, Interviewee K described that, one wish that the competences from external consultants are transferred to employees. Thus, this seemed not to be the case, as it was argued that the same competences might be recruited again for upcoming operations or projects. However, this was not agreed amongst all interviewees, as e.g. Interviewee I highlighted that external consultants many times are recruited by the unit, in order to keep the competence. Here, Interviewee J noted, *“There should be a set plan of what we should do ourselves, and what should be taken in externally, and that is a question of high importance”*.

## 5.2.2 Past Events Affect the Logics

In order to gain insights of Municipal unit A's width of IL affecting the digital transformation, the interview questions as well as this section were arranged by the sub codes; Structure and Principles, Processes and Routines, and Culture.

### *Structure and Principles*

According to the interviewees, a reorganization has recently been established in order to work with a functional organization divided in business areas in combination with a matrix organization. This, because of the many projects the organization handle on daily basis, and the structure is supposed to keep the focus on each business area but still infuse collaboration and resource exchange between the departments. The reorganization has according to the interviewees not been as successful as imagined or it is too early to say. This has in turn created a confusion in some questions regarding who is responsible for what, and also inefficiency as people may work on the same things. Interviewee C stated, *“For several years it has been said to work more in process orientation but still we work in downpipe”*. Furthermore, it was argued by interviewees that due to increased demand of their services leading to expansion of the organization, negative outcomes of past events had caused to change in management.

To enhance and make the resource allocation effective, a portfolio governance model has been implemented where each manager has ownership in their area. By this governance structure, the skills have been inventoried in order to get an overview of the organization regarding competence and occupancy. Also, it is supposed to foster a more agile work method and make it capable for employees to give suggestions on digital solutions or strategies. Interviewee C stated: *“If you ask the employees you would get different answers, but there is for sure a development vein within us all”*. Thus, in order to follow up on suggestions there was a so called 'development organization' at Municipal unit A who continuously collected

needs from everyone in the organization. Based on this, a priority list was created, and decisions were supposed to be taken.

Regarding the digital strategies being shared and informed, the interviewees indicated different opinions. Some argued for the strategies being well shared and informed to all employees, whereas others said this lacked in structure. Many of the interviewees described it to be the managers responsibilities to inform the employees, but according to Interviewee K the whole strategy work has to be stronger attached to the organization as it is related to the strategy from top to bottom. However, Interviewee G argued, "*we are far ahead, however, [...] not always first with new technology, but we are far ahead in applying for efficiency and change the clients work methods*". Several of the interviewees agreed with this, that the Municipal unit A is far ahead since they have to be, but it could always be better.

Even if there was an overall desire expressed to have a greater client focus in order to capture their need in an earlier state, Interviewee G stated that the organization sometimes listen more on the clients rather than demanding how and why processes should be done. A possible cause to this is reflected to be the culture of fear to fail, since many eyes watch public sector organizations. However, according to most of the interviewees the current coronavirus pandemic has at least temporarily decreased this level of fear and rather encouraged the unit to make fast decisions and implementations. For example, the unit made it possible for students to be homeschooled in three days which for sure boosted their confidence. Therefore, the pandemic has rather improved than worsen, according to Interviewee A.

#### *Processes and Routines*

The majority of the interviewees experienced that there are enough routines, where some are on organizational level and others on department level. They mainly saw the routines on organizational level to promote collaboration and standardization, whereas the routines on department level increased the effectiveness. However, according to Interviewee K, "*The routines are traditionally bounded which has not been well implemented, and I would say only 20 per cent knows about it and follows it, whereas the rest do not have a clue*". By the same token, Interviewee B stated that there are extensive amount of routines which are not being followed up as well as causing confusion, leading to the uncertainty in roles and mandates of who makes the decisions. The interviewees said they were aware of the decision-making process, although, they assumed that probably not all of their employees were aware of it. In general, the process from suggestion to reality can take up to a year, which is highlighted to be way too long in today's fast changing environment. Therefore, "*we should create space for flexibility so we can react faster*" (Interviewee J).

Furthermore, the interviewees stated that inflexibility occurs due to the budget process being set more than a year ahead. The unit has to break even and the budget is mainly ear marked so if one project aren't running, the funding is difficult to be used for other purposes. The portfolio model is then supposed to enhance flexibility within the budget as capital should be able to be moved between the portfolios. However, Interviewee K argued that, "*this model was never implemented correctly, some didn't bring it in and others interpreted it their way*". One interviewee further stated that, this results in loss for other services within the city, for example day care who might have needed this capital. In general, the majority of the interviewees did not think there was enough money for digital developments, but Interviewee E stated that "*it*

*really does not depend on how much money we have, but rather how much we can deliver and how much of transformation the city can take”.*

As previously described, the current pandemic has affected the organization as a whole. This has not only put a pressure on the organization, but also practically changed the work methods, which were expressed by all interviewees to mainly have good results in the routines and the digital transformation. Consequences of the pandemic has likewise effects on the society, leading to that customers and other stakeholders might have gotten a better understanding of the importance for digitalization. However, mainly two interviewees argued for digitalization being a fuzzy word that has several meanings. In their mind, digitalization is not only about IT-systems and tools, but also processes, routines and for sure leadership. Moreover, the role of the CDO has been to communicate the meaning of digitalization within Municipal unit A and the city as a whole, on how to proceed and why it is important. Unfortunately, it was expressed by Interviewee K that no mandate comes with this role and one can only advise the decision-makers with professional opinions.

### *Culture*

As previously mentioned, there is a willingness between the employees in Municipal unit A to drive the digitalization forward. The culture was mainly described by the interviewees as friendly, professional and customer service minded. However, there were some who stated that there are either; no existing culture due to an abundance of new people, a detached one that differ between the operations and no clear goals are defined, or a culture being highly affected by past events causing insecurity. Interviewee E expressed that *“Sometimes it (the culture) is built upon administration and management rather than innovation and development”*. The manager continued by saying that there is room for innovation, which several other interviewees agreed upon too, however, *“the challenge lies in taking care of it”*. Change propensity, insecurity and fear of making mistakes were explained by several interviewees as motives of why the innovation and digital transformation might be halted. Interviewee F expressed:

*“The culture is affected by previous events [...]. The employees have been tinged by this, which resulted in more strict routines and lowered self-esteem. It has caused a weak brand and a tradition that does not boost success. There are not great results, however, it gets better by time”.*

Moreover, some interviewees argued that the political environment has an effect on culture and work procedures as the municipal unit is politically ruled, who in turn elects the commission. This in turn, was explained as the higher instance of Municipal unit A, hence, other interviewees did not seem to think so. In general, the commission's role was indicated to be unclear for several interviewees because those who were making decisions came from different backgrounds, for example, childcare that were now making decisions about IT. The expectations from the society was expressed to have a great effect on Municipal unit A, since they are the end customers of the services. However, more focus has to be put on their needs and not only the direct customers according to Interviewee C. The municipal unit A is further described to occasionally being far too ambitious than possible, which in turn tear on the culture, this highlighted by Interviewee J:



*“We try to do way too much within Municipal unit A, which does not have classic clear goals. [...] not a single project has been glass clear to me. It is a question of culture. [...] in many fields people don’t have an idea of who is ultimate responsible”.*

Nevertheless, the Interviewee H argued for the culture to have become much better in the last two years, however simultaneously stated that *“it doesn’t help if you have clear strategies or goals, if you don’t work after them. [...] you can’t take your own decision because you want. [...] we have to work much more with the culture”*. However, the atmosphere was described to be open-minded when collecting initiatives of change, digital solutions or strategies. To support this and scale the efficiency, the portfolio governance structure was implemented. According to Interviewee D, this could also thrive for better way of working as it in some parts of the organization still can be somewhat traditional, and mainly on an individual level.

## 6 Discussion

The findings of the case study will in this section be discussed with the focus of how IC and IL are related to digital transformation. Hence, the steering documents and interviews will be connected to illustrate how they correlates within this. Further, the conceptual framework and the model presented in Figure 1, will act as a guide for structuring this section. Thus, illustrating the first and second relation of how IC and IL solely relate to digital transformation, followed by the third relation between IC and IL regarding digital transformation. This, in order to answer the research question of this study:

*How are integrative capabilities and institutional logics related to digital transformation within a public sector organization?*

The overall findings of this study revealed, on one hand, an insecure culture, with lack of communication and structure at Municipal unit A as whole. Further, literature states that in order to sustain digital transformation, one must change paths regarding value creation, organizational structure and routines, as the process of digital transformation is a disruption created by digital technologies (Vial, 2019; Matt et al. 2015; Hinings et al. 2018). On the other hand, the findings illustrated a possibility and encouragement from employees at Municipal unit A to drive the digitalization forward and stay competitive. These contraries will further be elaborated upon below.

### 6.1 Integrative Capabilities Relating to Digital Transformation

It is clearly presented by interviewees and steering documents that the most important for Municipality unit A was to fulfill the needs and wants of the society, hence be considered in the planning of operations, as the organizational mission was to enhance public value. Considering this, Pang et al. (2014) present that there is a difference between organizations operating within the private and public sector. This, as public sector organizations usually have the absence of profit-seeking rationale, due to their mission of enhancing public value. It is further argued that public sector organizations in particular therefore benefit from implementing IC, as development such as digital transformation gets facilitated if coordination and competences are sought internally. Hence, collaboration is aligned with external partners and across divisions (Pang et al. 2014). The perception of IC within Municipality unit A was reflected in the results as to some extent varied, depending on the interviewee and division in question. This, since some interviewees argued that e.g. coordination is well organized and understood across the unit, whereas others stressed that the coordination and collaboration across and within units was varied. By this token, Liao et al. (2009) highlight that the level of IC is reflected by an organization's shared understanding and knowledge. Thus, the results revealed that perceptions and understanding within the unit tended to vary when discussing shared coordination, collaboration, communication and competences.

#### *Projects as enablers for coordination*

Interviewees disclosed that divisions shared resources, thus argued, *"We are each other's resources and therefore collaboration is taken for granted"*. By working in cross-functional teams Warner and Wäger (2019) illuminate that digital transformation can be facilitated, as

collaboration tends to build and strengthen IC. Even though, results illustrated that the view across divisions varied depending on interviewee in question, it was agreed that collaboration was well organized for set projects. Hence, all operations and initiatives promoting collaboration is argued to build and strengthen IC (Warner & Wäger, 2019; Helfat & Campo-Rembado, 2016; Pablo et al. 2007). Therefore, one can argue, that although coordination across divisions is not a part of Municipal unit A's daily operations, the coordination of collaboration between teams for set project, contributes to IC, thus in turn facilitates development (Warner & Wäger, 2019; Helfat & Raubitschek, 2018). As presented, interviewees further highlighted that there was a willingness and openness towards enhanced collaboration between divisional boundaries, even though the coordination might not be there in daily operations. Thus, Arnello et al. (2019) argue that the efforts towards coordination results in benefits of effective learning and internal innovation. Municipal unit A's set projects which been argued to enable collaboration connects to Arnello's et al. (2019) theory, as projects within the unit tend to be created in order to enhance development or internal innovation.

Further, Helfat and Campo-Rembado (2016) suggest that in order to implement IC, e.g. collaboration across divisions, organizations should engage middle managers, as they usually are in a good position to coordinate cross-functional collaboration. By this token, Pablo et al. (2007) also argue that the engagement from middle managers can enhance the relationship between teams. Considering the structure of Municipality unit A, it is described that each division has their middle managers, who reports to their operation manager. When asking interviewees to describe the role of middle managers, responsibility such as coordination of collaboration across divisions, is not clearly mentioned. However, some interviewees described that middle managers have the responsibility of coordinating work and resources within their division and sometimes within projects. As middle managers' role seemed to vary depending on division, one can argue that the Municipality unit A do not in this case have unified routines for internal coordination, which in turn is argued by Helfat & Raubitschek (2018) to facilitate support for IC. If such internal routines were implemented, it is further argued that cross-functional collaboration between the divisions and teams are ought to be supported (Helfat & Raubitschek, 2018).

#### *Objectives differing from reality*

Steering documents disclosed that in order to maximize value across divisions, communication is of great importance and needs to be used in an effective structural way. According to the theory presented by Helfat and Campo-Rembado (2016) the use of effective communication is a requirement for enhanced coordination of activities and objectives across divisions. Hence, routines of communication should to be strengthen in common codes within an organization, which in turn is derived from shared understanding. Thus, this will enable benefits of IC (Helfat & Campo-Rembado, 2016). One can argue that Municipal unit A, has planned for effective and unified communication, as their steering documents clearly presented objectives for it. However, this tended to shift in reality, as interviewees and status analysis simultaneously disclosed communication as sometimes insufficient and difficult to understand. Further, results have illustrated that communication was not unified across the unit, rather, divisions tended to use their own routines, which created differences. Connecting to Helfat and Campo-Rembado (2016), differences with routines of communication is not to prefer, as it is the common codes and shared understanding of routines that enables the benefits of IC, such as internal development and innovation. Thus, unified routines for

communication is also stressed by Helfat and Raubitschek (2018) to create opportunities for digital transformation and internal innovation.

Moreover, steering documents have revealed that leaders within Municipality unit A, have the responsibility of communicating important information, objectives and routines to its employees. Within the theory presented, Helfat and Campo-Rembado (2016) highlight the importance of trust and leadership as engaged leaders are argued to positively contribute to effective IC, due to their role of coordinating communication and collaboration within and across divisions. Even though, steering documents presented the importance of leaders, interviews illuminated that communication vary depending on the role of employee. This, since communication routines were stronger at management level, hence lacked further down within the municipal unit. The structure of communication, might therefore not be effective from the top to the bottom, hence reflecting the importance of trust and leadership, who Pablo et al. (2007) promote as facilitating factors for digital transformation.

#### *Balancing public value and strategic choices*

In order for a public sector organization to develop, it has been argued that strategic choices are of relevant focus and importance, due to the lack of profit-seeking motives (Pablo et al. 2007). Thus, strategic choices are reflected e.g. within an organization's planning of resources (Vial, 2019; Pablo et al. 2007). Municipal unit A expressed within steering documents that it is not only the technology itself that develops an organization, rather appropriate and valuable competences. Thus, Pang et al. (2014) highlight that public sector organizations needs to seek and coordinate competences internally, as well as collaborate and seek competences externally with partners, in order to develop and digitally transform. Hence, IC is argued beneficial in order to coordinate competences internally and scan the external environment to retrieve opportunities (Helfat & Raubitschek, 2018; Vial, 2019). Interviews revealed that the sharing of competences was seen as important, however, results further disclosed that external competences were recruited more often, in order to help with short-term projects. Considering public value, some perceived external competences as negative, as they are paid by taxpayers' money. Results further expressed, that external competences were recruited too frequently for specific projects. Yet, external competence tended to not transfer knowledge within projects or when employed, rather once needed they were recruited again for upcoming projects. By this token, Pablo et al. (2007) illuminate the importance of IC as first, trust and leadership is essential in order to coordinate competences across divisions. Second, to primarily turn internally to seek competences will contribute to knowledge sharing, hence development. Third, Maijanen et al. (2015) advocate that IC makes it possible to overcome the gap between present and desired resources, as scanning and absorbing capabilities makes it possible to develop, from both internal knowledge sharing, hence absorb knowledge from external collaboration (Liao et al. 2009; Helfat & Raubitschek, 2018). Thus, interviews disclosed that Municipal unit A have the ability to be better in this area, by "double check" internally at other divisions instead of initially turning externally, also it was argued that the sharing of knowledge is essential in order to be an effective organization, which in turn is promoted within Municipal unit A's mission.

As mentioned, Municipal unit A presented the importance of leadership and culture in their steering documents, both for retention and attraction of future competences. Interviews further disclosed, that the role one takes as a manager will shape the employees, to either promote a culture where mistakes are allowed or one where they are not. By the same token Pablo et

al. (2007) and Helfat and Campo-Rembado (2016) highlight the importance of trust and leadership regarding effective IC that in turn will facilitate digital transformation. Hence, interviewees argued that the manager plays a great role, as the one who promote a culture where mistakes are allowed, provide opportunities for experimentation and innovation.

## 6.2 Institutional Logics Relating to Digital Transformation

It is clearly disclosed by the findings that Municipal unit A has a past that affect their daily operations in terms of collaborations, routines, principles and culture. Not only has the organization grown in a fast pace due to increased demand of its services, but also lack in rules and regulations causing wrongful interpretations, which have led to more strict governance and less innovation. However, the main objective stated in the steering documents was to create a digital workplace for Municipal unit A and the city as a whole.

### *A public sector organization with exclusivity*

Scholars claim that IL in the public sector are mainly driven by coercive mechanisms, based on the arguments of public sectors being financially dependent, having centralized and limited resources, ambiguous goals, as well as a structure and behavior that are being affected by a government's mandate (Greenwood et al. 2011; Townley, 1997). In the case of Municipal unit A the opposite has been proven. First, our findings disclosed that Municipal unit A was not extensively financially restricted, although inflexibility occurred because of the current budget process that was in place. Thus, as stated in results, it was rather more about the capacity to give and receive between the unit and its customers. Second, the resource allocation was in improvement phase, as of the reorganization and implemented portfolio governance model. Third, it has been revealed that the politics affected the unit to some extent, but Municipal unit A was mainly taking care of itself with little support from the commission. Hence, seemed to be driven by their customers and end-customers in terms of what services to deliver and when. Even if the findings indicated for goals and outputs being ambiguous at Municipal unit A, its IL are primarily driven by normative mechanisms as the unit is compelled by society at large and professionalization (Greenwood et al. 2011). This means that Municipal unit A is not a typical public sector organization being guided by mandate of the government, but having a purpose to fulfill with the professional value at hand.

Furthermore, our findings disclosed one of Municipal unit A's objectives to be: "create and coordinate principles and a common comprehensive view", which has led to a reorganization and implementation of a portfolio governance model. As stated in the results, Municipal unit A has reorganized rather recently, in order to improve their business operations. This in turn, is in line with the statement of Matt et al. (2015) who declare that transformation in fundamental business operations, management concepts and organizational structure is important to stay competitive these days. However, interviewees indicated that the reorganization had not improved the business operations entirely as they still mainly worked in "downpipes". Although, Korhonen and Halén (2017) argue that new IL are required for digital transformation, this does not seem to be fully achieved at Municipal unit A. The results indicated that employees were aware of the situation of historical events and path dependencies hindering the organization to be as innovative and effective as wanted. Therefore, new IL need to be built, with the past ones in mind, in order for them to be compelling and successful (Teece,

1997; Arellano et al. 2019; Greenwood et al. 2002). By the same token, Khan et al. (2017) illuminate the positive effects of changing the top-level management, which tend to occur more often in a public sector organization. The management of Municipal unit A was rather new according to the results, except it is not due to politics as Khan et al. (2017) refers to, but due to the increased demand of their services leading to expansion of the organization and past experiences leading to change in management.

#### *Divergent process management*

As Warner and Wäger (2019) claim, the ability to make fast decisions is crucial for digital transformation. This, could be correlated to the one of Municipal unit A's objectives stated in the steering documents: "Acknowledge the distinct structure and mandate of foundational decisions and principles". However, the findings from interviews revealed a reality of the decision-making process as being first of all, excessively protractive for an organization like Municipal unit A who is supposed to be on the top regarding digital solutions. Secondly, it was argued to be unclear for the employees, which in turn could lead to confusion and halter innovation. A key role such as CDO is valuable to give mandate when it comes to decisions regarding the digital strategy to enhance the agility Warner and Wäger (2019) suggest, however, as findings reveal, this is not the case within Municipal unit A at the moment. Furthermore, the status analysis presented in steering documents together with the interviews showed that there was a present insecurity among employees considering the process, mandates and prioritization of decisions. Even though they found it clear that the decision-making process relied on managers. Municipal unit A's objective: "Make IT the enabler it has the potential to be, by making smart short- and long-term decisions" could be a resolution for this. Boonstra et al. (2018) highlight the importance of making IT, reliable, available, compatible, secure, and maintainable, where the IT professionalism is relevant to attain for digital transformation. The results indicated for a very professional workforce at Municipal unit A, but the underlying rules and principles were interfering and those are important to understand for an institutional change (Reay & Hinings, 2009).

The routines were revealed to have a positive impact on organizational and department level, however, it was expressed that there were an excessive amount of them as well as them being traditionally bounded and poorly implemented. Reay and Hinings (2009) state IL being the basis to guide field-level actors' behavior by rules that are taken for granted, and in the situation of Municipal unit A, the routines were causing confusion and inability to act effectively, since they were not understood or used by all employees. Hence, the inner compass of the unit is steering the employees in different directions. Regarding the inner compass, definitions of terms such as digitalization, digital work and digital transformation needs to be in solidarity among the employees in order for the practices to be successful (Glaser et al. 2016). Further, it is emphasized that IL serve as socially shared arrangements at macro-level, but at micro-level more or less different logics are available, salient and accessible depending on the situational cues. This was shown in the results as different divisions advocated that individual routines also were important for the organization to cohere. Thus, it is important to have clear practices in the organization for the employees to trust and follow (Glaser et al. 2016).

#### *Contradicting culture*

Another objective presented in Municipal unit A's steering documents corresponded to "realize the importance of culture and leadership". Boonstra et al. (2018) as well as Powell and Dimaggio (1991) highlight the impact institutions cultural dimensions have on social action by

enabling or constraining it. In the case of Municipal unit A, historical events appear to constrain rather than enabling the social action. Even the innovative capability seems to be lowered as the fear to fail is greater, although there is room for innovation as explained by the interviewees. The effects from the unit's historical events can be drawn to the statement of Townley (1997), who emphasize construction of IL through historical experiences and institutionalized practices, which shape action separately from immediate organizational or individual interests. IL are important as it accommodate for the sense of prevailing purpose (Reay & Hinings, 2009), and although, the culture of Municipal unit A is described by interviewees as friendly, professional and customer service-minded, it was by the majority described as fear of making mistakes, insecurity and lack of unity. This in turn, might hold the organization back within digital transformation. However, historical values should not be replaced, one should rather engage in new digital initiatives, in order to refresh the corporate culture (Warner & Wäger, 2019). In the time of currently pandemic circumstances, a force in digitalization and work methods has occurred at Municipal unit A and led to a new type of unity between the divisions and employees. Thus, where services have to be delivered in faster pace and agile decisions need to be made. Therefore, the findings showed willingness and capability among employees to actually make changes, which could open up for better integrity for the future and strengthen the digital transformation (Vial, 2019; Hinings et al. 2018).

### 6.3 Integrative Capabilities and Institutional Logics in Relation

It is argued by Vial (2019) that changed paths in value creation, management and organizational structure is necessary for digital transformation, thus, technology is not the only component to adjust, but also culture, collaborations and processes. To enhance digital transformation, Korhonen and Halén (2017) illuminate that IL is required, whereas Tiwana and Kim (2015) stress the importance of IC in order to align business and IT for transformation. Findings of this study acknowledged that IC and IL have a strong relationship to digital transformation, hence the current process of digital transformation at Municipal unit A was affected by this relation in an adverse way.

#### *The role of culture*

Warner & Wäger (2019) stress that culture, including underlying behaviors and routines, needs to be continuously refreshed by facilitating internal integration and collaboration through cross-functional teams to promote innovation and digital mindset across divisions of an organization. Interviewees argued that routines are continuously refreshed, however they simultaneously highlighted that routines which were created within single divisions were not followed up, thus in turn caused confusion among employees. Hence, this connects to Warner & Wäger (2019) theory, however it is argued by interviewees that routines at Municipal unit A are rather updated to the extent that cause confusion. Thus, not by internal integration and cross-functional integration, which is suggested (Warner & Wäger, 2019). Findings further revealed that IL at Municipal unit A are affected by path dependencies and historical events, which has led to a contradicting culture. As previously mentioned, some interviewees described the culture to be friendly, professional and customer service-minded, whereas the majority described it to be based on fear of making mistakes, insecure and lack of unity. According to the steering documents, culture and leadership was mentioned as enablers for attracting and retaining new and present competences, which in turn was argued of importance when

creating common principles, hence development opportunities. Interviews further illustrated a culture and leadership that were not in comply with the acceptance of mistakes to the extent necessary for innovation and digital transformation to take place (Hinings et al. 2018). By the same coin it is highlighted that employees' trust in their leaders is of great importance, for the ability of trying out innovative ideas and initiatives (Pablo et al. 2007; Helfat & Campo-Rembado, 2016). Hence, this goes hand in hand with both IC and IL, as due to the type of leadership and past events, Municipal unit A's culture has been wounded and therefore not allowed the mistakes from innovative ideas. Thus, this might have halted innovation and improvements (Townley, 1997). Hence, it is suggested that structured common principles and allowance of calculated mistakes would enhance the innovation and relate to digital transformation at Municipal unit A. Strong social action and sense of purpose among employees should outline the unit's IL since this is important for transformation (Boonstra et al. 2018, Powell & Dimaggio, 1991; Reay & Hinings, 2009).

#### *Coordination for a comprehensive view*

Helfat and Campo-Rembado (2016) state that the routines of communication and coordination are strengthen in common codes within the firm, which originates from shared understanding, thus enable pros of IC. Findings disclosed that IC at Municipal unit A were to some extent varied, stemmed by the lack of common view and unity between divisions. A common view consists of shared knowledge of communication, collaboration, and competences, aligned with the importance of knowing the routines and recognizing the regulations (Zimmermann et al. 2018). Helfat and Raubitschek (2018) suggest, that by implementing routines for internal coordination and communication, IC achieve support, hence cross-functional collaboration between divisions and teams are to be facilitated. The same goes for IL, as Arellano et al. (2019) argued that employees' history of routines, social exchange and collaboration, affect the actual information sharing and their ability of joined decision-making at present. Thus, it is important to understand the past and culture in order to move forward (Arellano et al. 2019; Reay & Hinings, 2009). The results indicated for a fast organizational growth and historical events that had put spanners in the work for effective collaboration and communication within Municipal unit A. Even though, the coordination of routines and collaboration across divisions to some extent was found when specific projects are established. However, routines of communication and collaboration for the unit as whole varied from division to division, and due to the variation of active communication channels there was a challenge for top-down communication to succeed. IL and IC can here be connected as they both represent and enable shared knowledge and understanding across an organizational unit, hence promote that it will lead to development and digital transformation (Helfat & Campo-Rembado, 2016, Arellano et al. 2019; Boonstra et al. 2018; Helfat & Raubitschek, 2018).

#### *The ability to adjust*

The circumstances of the pandemic have caused an urgent need for digitalization, which has visualized Municipal unit A's ability to be agile and take action for itself and its customers, in order to secure the objective of enhancing public value. Considering this, findings within steering documents revealed that objectives and plans are set, and now at crisis one can see that they have functioned as a base for agility and ability to adjust. Hence, this demonstrates how IC and IL come to complement each other for collaboration. Thus, the shared understanding of objectives and the underlying willingness from employees tend to here have contributed to collaboration across divisions. As this ability was spotted within Municipal unit A, it is crucial for them to further establish and attain this in daily business operations today



and in the future, in order to facilitate development (Helfat & Campo-Rembado, 2016; Helfat and Raubitschek, 2018; Warner & Wäger, 2019). Moreover, as findings acknowledged IL at Municipal unit A to be driven by normative mechanisms, there is an ability of having greater flexibility for this, than other public sector organizations who are highly influenced by the politics (Greenwood et al. 2011). However, adjustments in the processes of budgeting and decision-making are areas for improvements in order to achieve the flexibility. It can further be argued that IC here plays its role, as flexibility can be enhanced by working in cross-functional teams, as employees learn from each other, hence creates the ability to adjust (Warner & Wäger, 2019). Further, this will in turn contribute to facilitate innovation, as flexibility towards opportunities within internal and external environment can be coordinated by combining IL and IC (Greenwood et al. 2011; Maijanen, et al. 2015; Helfat & Raubitschek, 2018).

## 7 Implications for Practice and Theory

### *Implications of Practice*

There are six main contributions to practice stemming from this study. With the lens of IC and IL, firstly our study has increased the knowledge of how the two relate to digital transformation and to each other within a public sector organization. Secondly, the framework of this study enlightened the importance of coordination for both IC and IL, in order to establish shared and comprehensive understanding across the organization. We highlight that leaders are in an important position as they have the mandate to enable prerequisites for shared communication and knowledge within the organization. Hence, thirdly it is suggested that shared knowledge and understanding of activities and routines, contribute to an understood culture, which in turn enables IC and a comprehensive IL. Thus, gives opportunities for digital transformation. Fourthly, another important implication for practice regards middle-managers, as it has been argued that they are in the position of enabling operations across divisions, this as they should have the responsibilities of coordinating collaboration that promotes cross-functional teams and projects. Hence, as it will create opportunities for internal innovation, and digital transformation. Fifthly, we suggest that organizations operating in the public sector needs to inform employees of their restrictions and inflexibilities considering factors such as, processes and budget, as it will contribute to shared knowledge and understanding across the organization, hence provide opportunities for IC and shared IL. Finally, we would like to highlight the importance of an organizations past when engaging in the process of digital transformation.

### *Implications of Theory*

There are three main implications for research stemming from this study. Firstly, results have disclosed that organizational culture, is a factor affecting both IC and IL, hence we suggest that it should be well considered when planning for digital transformation. Secondly, we suggest that common codes both regarding e.g. routines and communication have an effect on both IC and IL, hence can inhibit or promote digital transformation. Finally, we suggest a model (*Figure 1*) which has not been found by scholars before. The model provides an overview of how IC and IL relate to digital transformation, however it also highlights the two in combination. We propose that the model can be the basis and used as a framework for upcoming research, hence be more elaborated upon.

## 8 Limitations and Future Research

### *Limitations*

Our study is not without limitations, firstly it could have been beneficial for the result to also interview employees further down in the organization, such as the middle-managers, in order to get deeper insights of the communication flow, shared understanding and culture as whole. Due to limitations of time, this study can only give recommendations of how IC and IL are related to digital transformation throughout a top-management perspective within a public sector organization. Hence, it might have been beneficial to investigate the Municipal unit's management as whole, including middle-managers. Secondly, since the study was conducted at only one municipal unit consisting of approximately 650 employees, the results might not be transferable for other municipalities or municipal units. Thus, the size of the unit and the limited conducted interviews can question the reliability for other municipalities or public sector organizations (Patel & Davidson, 2019). Thirdly, as the municipal unit in question operates in Sweden, it also corresponds to Swedish legislations and routines for municipalities, hence the results might not be reliable for municipalities or municipal units operating in other countries. Lastly, due to current circumstances of the Covid-19 pandemic, the interviews conducted could not be held at the Municipal unit's office, instead they were held through digital tools and by phone. This in turn, could have limited the results, as it by phone or through tools is more difficult to sense the mood and situation described by interviewees. Thus, it could also have been beneficial for results to sense the atmosphere at the office, in order to interpret their current situation.

### *Future Research*

Previous research that have studied IC and IL solely, have given reference for our conducted study (Helfat & Raubitschek, 2018; Boonstra et al. 2018; Warner & Wäger, 2019). However, our perspective of investigating how the two are related to digital transformation might give rise to new questions, thus opportunities for future research.

As presented in the discussion, culture is argued to affect the coordination of routines and collaboration across units, hence corresponds to both IC and IL (Warner & Wäger, 2019). We therefore suggest to investigate this question to a greater extent, in order to obtain deeper insights of how e.g. culture could relate to digital transformation within an organization (Hinings, 2012; Vial, 2019). Hence, using our conceptual framework as a lens. Further, as mentioned within limitations, the time has limited our scope of perspective. Therefore, it would be interesting for future research to investigate this question, taking the perspective of a public sector as whole, to get a more comprehensive view of how IC and IL are related to digital transformation. Hence, research in the field would be enriched if a multiple case study was conducted, in order to compare results and investigate generic characteristics (Yin, 2011). Furthermore, the research could benefit from observations during a longer period of time at the case organizations to better grasp the current situation (Hennink et al. 2011). This, since culture is previously described to be a fundamental pillar in this field. Lastly, as Pablo et al. (2007) stressed there are distinct differences between public and private sector organizations, as firms operating within public sector, have to focus more on strategic choices to develop, due to lack of competitiveness and profit-seeking rationale. Thus, seeking internally for competences and align collaboration with partners are highlighted as important (Pang et al. 2007). This study has therefore paved way for future studies to investigate how IC and IL is

related to digital transformation for private sector organizations. This, since it would be of great interest to compare and see if there are any different results.

## 9 Conclusion

This study aimed to investigate the concepts of integrative capabilities and institutional logics in terms of how they relate to digital transformation. A conceptual framework with three relations was created and used in a single case study conducted at a public sector organization. This, in order to find an answer to the research question:

*How are integrative capabilities and institutional logics related to digital transformation within a public sector organization?*

By collecting data through semi-structured interviews with top-management within a public sector organization, together with steering documents, this study could gain insights of a strong relationship between integrative capabilities and institutional logics, thus how they relate to digital transformation. The results illustrated that good intentions were given in the steering documents regarding communication, coordination, objectives, culture and leadership. However, the results presented by interviews, indicated that this was not entirely fulfilled in reality. This since, culture and leadership were affected by past events, while communication and coordination were unstructured. Lack of internal scanning for competencies and resources, together with fear of failure and insecurity, have led to halted innovation and digital transformation. Nevertheless, the reorganization and implementation of the portfolio governance model in this public sector organization are steps towards the necessary improvements, and the ability and willingness among the employees to develop are revealed by the findings to exist in the organization. To come further in the progress, it is concluded that coordination of routines (integrative capabilities) to get a comprehensive shared understood view (institutional logics) is related to digital transformation, hence it can be argued as beneficial for development.

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