

# Closeness and distance: configurational practices for digital ambidexterity in the public sector

Digital  
ambidexterity

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## Abstract

**Purpose** – The purpose of this study is to increase the current understanding of how public sector organizations dynamically balance exploration and exploitation of digital initiatives, i.e. the enactment of digital ambidexterity.

**Design/methodology/approach** – This study uses Zimmermann, Raisch and Cardinal's perspective of configurational practices for addressing the enactment of digital ambidexterity. The method comprises a qualitative, interpretative case study of a large municipality in Sweden, using both interviews and secondary data.

**Findings** – Through the perspective of configurational practices, the study identifies and describes a set of sub-practices that constitute the enactment of digital ambidexterity. This is then used for theorizing how configurational practices involve the balancing of closeness and distance.

**Research limitations/implications** – This study is limited by being a single, non-longitudinal case of a Swedish municipality that has implications for generalizability and transferability. Moreover, it opens up for new perspectives to the future study of the enactment of ambidexterity in the public sector.

**Practical implications** – Organizations striving for digital ambidexterity are recommended to use the configurational approach to assess and design their governance to build ambidextrous capabilities through a combination of closeness and distance.

**Social implications** – This study is aimed at strengthening public sectors abilities for continued relevance for its stakeholders over time. With increased need for digital innovation within the public sector,

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the findings and recommendations derived from the study lead to increased innovation capability, which in turn is expected to lead to increased relevance of services.

**Originality/value** – To the best of authors' knowledge, this is the first study that addresses how ambidexterity is enacted within the public sector following the configurational approach. As such, it opens up for new perspectives on organizational ambidexterity.

**Keywords** Ambidexterity, Public sector, Enactment, Closeness, Configurational practices, Digital ambidexterity

**Paper type** Research paper

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## 1. Introduction

Digitalization is associated with a plethora of challenges for public sector organizations. To stay relevant in times of digital disruption and transformation, public sector organizations need to be more adept to handling discontinuous change, as well as work with swiftly and cost-efficiently exploring new digital options (Cordella and Tempini, 2015; Fishenden and Thompson, 2012; Kankanhalli *et al.*, 2017). As noted by Mergel *et al.* (2018), these challenges involve a burgeoning need for organizational agility and what Janssen and van der Voort (2016) refer to as adaptive governance.

Albeit necessary to instill the organizations with greater agility and adaptability, the underlying operating models, institutional and regulative environments of the public sector are still in essence designed for robustness and stability (Pedersen, 2018; Peng, 2019). Digitalization does, as argued by Janowski (2015), bring new necessary capabilities for organizations; however, they still need to maintain many of the capabilities that they have evolved over the years (Rolland *et al.*, 2018). This dual necessity for stability and change is advocated by the literature surrounding organizational ambidexterity (March, 1991; Raisch and Birkinshaw, 2008; Smith and Umans, 2015), where organizations are acknowledged to engage in parallel exploitation and exploration activities (Heracleous *et al.*, 2019). We posit that a particular type of ambidexterity, i.e. digital ambidexterity, becomes a necessary capability for organizations in the public sector affected by digitalization. Digital ambidexterity is defined by Piccinini *et al.* (2015, p. 12) as “dealing with tensions related to the simultaneous handling of established business activities and rapidly changing new digital activities.”

Recent developments in organizational ambidexterity highlight the need for an increased emphasis on enactment rather than organizational design (Zimmerman *et al.*, 2018; Heracleous *et al.*, 2019; Cannaearts *et al.*, 2019). Ambidexterity is considered as the continuous and dynamic balancing of exploration and exploitation rather than an attainable balance between said two (Luger *et al.*, 2018). In other words, research is called for that studies how said balancing is performed by the organization. As a first substantive contribution to the study of enactment, Zimmermann *et al.*'s (2018) study ten corporate innovation initiatives and identify practices they deem as “configurational,” i.e. enacting ambidexterity. These configurational practices are related to maintaining and counter-acting the existing order in the quest for dynamic balancing.

This study builds on the previous findings of Zimmermann *et al.* (2018) to investigate how ambidexterity is enacted through configurational practices in the public sector. The aim is to contribute to the emerging literature on the enactment of ambidexterity. Moreover, the clear links between adaptive governance and the ability of the organization to dynamically balance implies that further understanding of how enactment could inform the literature surrounding adaptive governance (Janssen and van der Voort, 2016; Hong and Lee, 2018; Wang *et al.*, 2018), i.e. a governance that rather than relying solely on diagnostic

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control centers around interactive control (Simons, 1994; Müller-Stewens *et al.*, 2020). Therefore, the study answers the following research question:

*RQ1.* How are configurational practices employed in the enactment of digital ambidexterity?

This study contributes through testing and further developing the theorizing initiated by Zimmermann *et al.* (2018) in regards to how digital ambidexterity is enacted in organizations. This is done in response to both Zimmermann *et al.* (2018), Magnusson *et al.* (2020) and Cannaearts *et al.* (2019) who call for a more nuanced understanding of balancing of efficiency and innovation in the public sector. With digital ambidexterity seen as a desired result of adaptive governance, we contribute to the call from Janssen and van der Voort (2016) by identifying the configurational practices found in public sector organizations. We see configurational practices as core elements of adaptive governance and contribute by deriving recommendations for how said configuration may be built into the governance of public sector organizations.

This paper is organized as follows. After this brief introduction, we present the precursory findings in the form of previous studies of ambidexterity and its enactment, along with the theoretical framing in the form of configurational practices by Zimmermann, Raisch and Cardinal (2018). This is followed by the method of the study, and the results in the form of an overview of the identified configurational practices found in the case. Finally, we present a discussion of the findings where we theorize on the use of configurational practices in the enactment of digital ambidexterity in the public sector.

## 2. Precursory findings and theoretical framing

### 2.1 *The enactment of digital ambidexterity*

The study of organizational ambidexterity traces its main theoretical underpinnings to the work of March (1991) on organizational learning. In this seminal article, exploitation and exploration were treated as commensurable facets of organizational work. Through seeing them not as subject to necessary tradeoffs (Stigler, 1939; Stettner and Lavie, 2014) but equally achievable, organizational ambidexterity was promoted as a mechanism through which organizations would assure sustainable success (Tushman and O'Reilly, 1996; Gibson and Birkinshaw, 2004).

As noted by Zimmermann *et al.* (2018), the lion-share of the literature following March (1991) approached the idea of organizational ambidexterity from a design perspective. This implies that they strive to find organizational designs such as structures, processes and strategies to the balancing conundrum. Through an onslaught of studies such as Tushman and O'Reilly (1996), Birkinshaw and Gibson (2004) and Raisch and Birkinshaw (2008), the literature evolved around notions such as structural, temporal, and contextual separation to facilitate an appropriate balance between exploration and exploitation. Zimmermann *et al.* (2018) argue for a perspective to organizational ambidexterity that, instead of focusing on organizational design, focuses on how ambidexterity is enacted (Weick, 1989).

A separate line of criticism to these core studies was offered by Luger *et al.* (2018) in their study of insurance firms. Here, the authors find that an organization will always be in a state of transition in terms of the optimal balance point between exploitation and exploration. With the outside environment changing, i.e. the dynamism increasing and decreasing over time, this would indicate that the optimal balancing point is contingent upon the dynamic environment (Stieglitz *et al.*, 2016; Lee and Puranam, 2016). From this perspective, the very notion of balance needs to be replaced by the enactment of continuous balancing of tensions between exploration and exploitation.

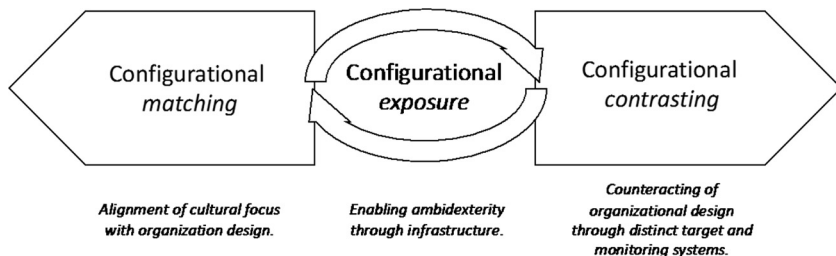
In this study, we posit that the very nature of digital assemblages and hence digitalization as argued by [Yoo et al. \(2010\)](#) and [Nambisan et al. \(2019\)](#) call for an enriching of the construct of ambidexterity. With the digital being core, we see the need for a new form of ambidexterity, i.e. digital ambidexterity. In line with [Piccinini et al. \(2015, p. 12\)](#), we define digital ambidexterity as “dealing with tensions related to the simultaneous handling of established business and rapidly changing new digital activities.” We argue that digital ambidexterity may allow for a more nuanced study of phenomenon such as digital transformation ([Vial, 2019](#)), digital disruption ([Karimi and Walter, 2015](#)), digital innovation ([Svahn et al., 2017](#)) and digital government ([Janowski, 2015](#)).

We acknowledge that albeit predominantly used within the study of firms in the private sector, organizational ambidexterity holds great promise for the study of digital government. Here, we rest our claim on contributions such as those of [Palm and Lilja \(2017\)](#), [Boukamel and Emery \(2017\)](#); [Smith and Umans \(2015\)](#), [Burgess et al. \(2015\)](#); [Cannaerts et al. \(2019\)](#) and [Gieske et al. \(2019\)](#) who all successfully integrated the ambidexterity construct into the study of the public sector. As noted by [Smith and Umans \(2015\)](#), although a dearth of application of organizational ambidexterity in the public sector, the notion of dual-emphasis on exploitation and exploration has been studied in the past, and the associated literature is deemed highly relevant. This is also supported by [Peng \(2019\)](#) in her exploration of the limits of the use of organizational ambidexterity as a theoretical framing for studies of the public sector.

*2.2 Configurational practices as enactment*

In [Zimmermann et al. \(2018\)](#), the issue organizational ambidexterity is approached through the assumption that the main mechanism through which organizations achieve ambidexterity is configuration and enactment, and not organizational design and strategy. The configurational perspective has been applied as a lens to study ambidexterity in the public sector by [Cannaerts et al. \(2019\)](#). In their study of Belgian public culture centers, they found the existence of six unique “paths,” i.e. combinations of design and leadership conditions that allow for a balancing of exploitation and exploration.

On the basis of this assumption of ambidexterity as something that is configured, not designed, the authors develop and test a theoretical model for how said configuration happens, primarily through the practices of front-line managers. The resulting model for configurational practices ([Figure 1](#)) involves the parallel enforcing (matching) and counteraction (contrasting) of organization design, mitigated through internal integration in the organization (exposure). Core is the necessity to both enforce and align the culture with the organizational goals and control and to question and challenge the prevailing structures and control. This dual approach has previously been acknowledged in literature such as



**Figure 1.**  
[Zimmermann et al. \(2018\)](#) configurational initiatives

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Hedberg and Jönsson (1978) in their work on semi-confusing information systems that simultaneously aspires for order and chaos.

The first configurational practice is that of configurational matching where frontline managers adapt the informal culture to the formal structure of the organization. This practice involves a strong emphasis on increasing communication within the organization to facilitate a common language in reaching the organization's goals (Zimmermann *et al.*, 2018, p. 750). Thus, there is a strong emphasis on enhancing the internal culture and facilitating the overall communication within divisions with fewer instances of linguistic confusion (Cameron and Quinn, 2011; Pandey and Garnett, 2006). The configurational matching considers an external culture focus by, for example, increasing the collaboration with other organizations and universities to widen and expand the internal competence with new insights (Bommert, 2010).

The second practice, configurational contrasting, is the opposite of matching, where frontline managers disregard the official structure in favour of the informal structure deemed as a better fit for organizational goals. This involves a sentient break with the formal structure, i.e. work-arounds and shadow routines (Gregory *et al.*, 2018) where the actors actively strive for misalignment (Yeow *et al.*, 2018). As found in Berente *et al.* (2016) in their study of NASA, the organization's ability to afford such work-arounds and temporary misalignments may be an indicator of performance. This is explored in Magnusson *et al.* (2020) and their study of shadow innovation (i.e. unsanctioned innovation) in public agencies.

The third practice, configurational exposure, functions as an enabling infrastructure for the first two configurational practices. Configurational exposure facilitates the pursuit of ambidexterity by breaking information silos between divisions and by standardizing software and communicative solutions to align decision guidelines (Van den Bosch *et al.*, 1999). This allows for cross-functional collaboration between divisions. The rationale for this is to facilitate an increased, shared, understanding between employees within the organization to better understand their shared goals, and with greater ease work together and solve problems in new ways.

### 3. Method

#### 3.1 Empirical selection and data collection

This study uses an interpretative, qualitative case study approach (Walsham, 1995) to further develop the theory of configurational ambidexterity as proposed by Zimmermann *et al.* (2018). The organization selected is the municipality of Sundsvall, located in the middle of Sweden with a total of 100,000 citizens, 9,000 employees and an operating budget of €600m (ekonomifakta.se). The rationale for the choice of case organization is that it is an organization with a fairly new initiative in the form of a digital agenda with substantial allocated resources, and convenience in that the researchers had complete and unfettered access to all aspects of the organization.

Data was collected in the form of steering-documents (19) and semi-structured interviews with key informants deemed central to the roll-out of the digitalization initiative. The selection of interviewees was conducted in dialogue with the organization following a snow-ball sampling approach (Hemmink *et al.*, 2011) and resulted in 19 individuals (Table 1). Provided the focus of the research being the enactment of digital ambidexterity by front-line managers through configurational practices, the selection of interviewees was performed with a clear bias towards individuals perceived to fulfill the criteria of front-line managers with a relationship to digitalization. This goes in line with the perspective from Zimmermann *et al.* (2018) and directly delimits the study from other actors in the

Role	Function	Role	Function
Head of local government	Municipal office	IT-strategist	Education
Chairman of the municipal board	Municipal office	Director of IT	Digitalization and innovation
Senior advisor	Municipal office	Head of digitalization	Digitalization and innovation
CEO	Core-business	IT-strategist	Digitalization and innovation
CFO	Core-business	Process developer	Digitalization and innovation
CIO	Core-business	Head of innovation	The idea hub
Director of HR	Core business	Innovation leader	The idea hub
Director	Social services	IT-manager	IT Service centre
Head of development	Social services	Head of development and project resources	IT Service centre
IT-Coordinator	Social services		

**Table 1.**  
Overview of informant's role and function in Sundsvall municipality

organization. In contrast with [Cannaerts et al. \(2019\)](#) study of configurational practices related to ambidexterity where the manager-perspective was complemented through 7% of the respondents where from non-managerial roles, our sole focus on front-line managers comes with limitations that will be addressed in the conclusion.

The total amount of interviews conducted was the result of the researchers striving for theoretical saturation as suggested by [Bowen \(2008\)](#). The interviews were semi-structured, lasted between 60–90 min and focused on ascertaining personal accounts of the practices involved in balancing exploitation and exploration. All but two interviews were conducted on-site at the municipality. The interview comprised a set of questions based on the perspective of configurational practices found in [Zimmermann et al. \(2018\)](#) and the distinction between efficiency and innovation as found in [Magnusson et al. \(2020\)](#) and [Cannaerts et al. \(2019\)](#). In other words, the questions were designed to operationalize the three types of configurational practices, and ambidexterity was equated with the balancing of efficiency and innovation. In equating exploitation with efficiency and exploration with innovation, [Magnusson et al. \(ibid\)](#) argue for an increased closeness with organizational vernacular and hence decreasing the risk of distancing the interviewer and decreasing credibility of the findings. This approach and equation is found in previous work by [Benner and Tuschman \(2003\)](#) and [Xue et al. \(2012\)](#).

The interviewers were careful in avoiding questions where the answers would risk internal blame-games and risk breaching the confidentiality of the interviewee when quotes would be used for publishing ([Hennink et al., 2011](#)). Following inspiration from [McCracken \(1988\)](#), the interviewees were re-currently asked to provide examples to expand on their first answers to each question. Each interview was conducted by two of the researchers, sound-recorded and transcribed verbatim directly after the interview following the recommendations by [Hennink et al. \(2011\)](#).

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sole focus on front-line managers comes with limitations that will be addressed in the conclusion.

### 3.2 Method of analysis

The method of analysis comprised three steps. First, we sensitized ourselves to the research context through carefully reading and re-reading the collected steering documents (Elo *et al.*, 2014). The rationale behind this was to gain a rich understanding of the context (Yin, 2013). This step involved conducting a content analysis of the steering documents following March (1991) and Uotila *et al.* (2009) to ascertain a first insight into the ambidextrous balancing point communicated in the steering documents (Table 2 for an overview of constructs/keywords used).

Second, we used the transcribed interviews as a basis for coding in Nvivo Pro. The coding was deductively and iteratively conducted (Hennink *et al.*, 2011) through the roster of Zimmermann *et al.* (2018) to identify examples of configurational practices. After a first round of coding into the three types of configurational practices, we started to look for second-order constructs through axial and selective coding schemes (Saldaña, 2015). This resulted in the identification of nine unique categories of configurational practices such as socialization, internal culture and output control.

Third, we used the findings from the coding to analyze the results, through linking the results back to Zimmermann *et al.* (2018) to create a more nuanced overview of configurational practices. As part of this, we theorized on inductively identified patterns of closeness and distance (Blomberg *et al.*, 2007), resulting in an overview of the configurational practices as a combination of increased distance and closeness.

## 4. Results

In relation to the steering documents, the findings showed that there was a clear bias towards efficiency rather than innovation in the municipality's formal (designed) ambidexterity (Table 3). We deem this to be an indication of the formal control in the municipality being predominantly geared towards efficiency rather than innovation. These results are relatively in line with previous findings of ambidextrous balancing points in the public sector as presented in Magnusson *et al.* (2020), whereby issues of potential sectoral isomorphism may need to be studied further (Kizito and Magnusson, 2020, for a tangent).

In line with Cannaearts *et al.* (2019, p. 20), this finding should be treated as merely indicative and subject to further research because the implications are still under-researched. Hence, our main result will comprise a deeper analysis of the findings from the interviews.

In relation to the interviews, the study identified nine distinguishable configurational practices, associated with the three categories of configuration as presented by

Exploitation (efficiency)	Exploration (innovation)
Refinement – Refine* (förädl*)	Search – Search (sök)
Choice – Choice (val*)	Variation – Variation (varia*)
Production – Producti* (produkti*)	Risk taking – Risk taking (risktagande)
Selection – Select* (selekt*)	Experimentation – Experiment*
Implementation – Implement*	Flexibility – Flexib*
Execution – Execut* (exekver*)	Discovery – Discover* (upptäck*)
Efficiency – Efficien* (effekt*)	Innovation – Innovati*

**Table 2.**  
Words identified for  
word count and rank  
(swedish term in  
parenthesis)

Zimmermann *et al.* (2018). These practices are presented in Figure 2, and elaborated upon below per category.

4.1 *Configurational matching*

As noted by Zimmermann *et al.* (2018), matching refers to the organization aligning its culture with the organization’s design, i.e. the formal control and structure of the organization. The configurational matching was found manifested in three practices, i.e. internal culture, external culture and structural integration.

4.1.1 *Internal culture.* To achieve a dynamic balancing, a fundamental cornerstone was identified in clearly showing how the two concepts of efficiency (exploitation) and innovation (exploration) relate to one another.

[...] efficiency and innovation are in fact anti-poles to each other, I don’t think everyone is aware of this. Something we have do more of is to describe how efficiency relates to innovation. Director of IT

In addition, the data showed that communication is crucial to adequately change the internal organizational culture.

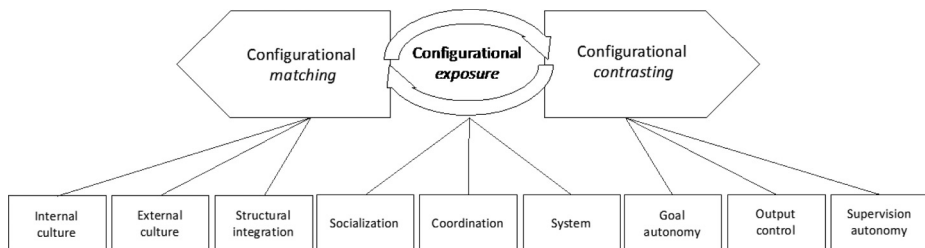
You can’t communicate too little. It is a constant repetition needed just to get people to put their mugs in the dishwasher, not to talk about changing their way of working or routines. Municipal commissioner’s senior advisor

From another perspective, to navigate the internal cultural toward a more innovative and ambidextrous IT Governance, the organization must encourage risk-taking and not be afraid to make mistakes while experimenting or prototyping new ideas.

**Table 3.**  
Overview of results from the content analysis

	Efficiency (exploitation)		Innovation (exploration)
Execution	198	Innovation	89
Efficiency	131	Flexibility	7
Implementation	8	Search	0
Selection	5	Variation	0
Production	2	Risk taking	0
Choice	0	Experimentation	0
Refinement	0	Play	0
Refinement	0	Refinement	0
<i>TOTAL (percentage)</i>	<i>344 (78%)</i>	<i>TOTAL (percentage)</i>	<i>96 (22%)</i>

**Figure 2.**  
Overview of identified configurational practices





If you fall, we are there to catch you. We want to push them closer to the edge [to dare to experiment]. Head of digitalization

This quote is reinforced by another respondent that stressed the importance of creating a safe and forgiving environment towards innovation within the internal culture focus.

Create a level of safety, that you're included in the development process [...] one has to feel and try out in order to see it [technological change] is nothing scary. That's how we win one person at a time, it creates confidence. Head of innovation, Idea hub.

However, it is not only employees from middle- and lower management that are required to embrace the idea of risk-taking when pursuing innovation. Top management needs to push their current boundaries regarding investments into new, innovative solutions, which might not give any visible short-term return on investment.

I think top-management are required to have this enthusiasm and dare to test and potentially fail [when trying new things]. Director, Social services

*4.1.2 External culture.* To achieve an ambidextrous balance within the organization, there have been initiatives to increase the collaboration with external actors and to pursue solutions to current or emerging challenges where internal expertise alone is not deemed enough. Hence, there is an explicit need for involving external stakeholders' in the enactment of ambidexterity.

One identified strategy for the organization to identify new solutions was to initiate a collaboration with a nearby university. The reason behind this was to have an external, academic perspective of which challenges and solutions the municipality have or may encounter and accordingly solve or reap benefit from them.

One thing I think has contributed in later years is that we have an agreement with a nearby university, we share experiences [...] we need a continued collaboration with academia. Head of digitalization

Moreover, the employees cannot develop a perfect idea for another division disconnected in terms of communication. To fully create value and/or fill an identified need, they must strive for communication with both care-recipients and care-givers.

We want to be at the very end of the capillaries, in the far end of the home care staff and those who work with the elderly, because that's where things [of value] happen for the citizens. Head of digitalization

During the past years, there had been a stronger drive to share ideas among municipalities throughout the country. The reason behind this was seen in that municipalities share similar challenges, e.g. the demographic challenge of a growing population and a lacking number of care-givers. Hence, every idea to address this specific challenge is valuable, shared and even co-created between municipalities.

That's one of the best things of working in a municipality, there's a big generosity with ideas. You give, you take and evaluate, so there's a lot of sharing [between municipalities]. Director, Social services.

*4.1.3 Structural integration.* To increase the collaboration and the overarching understanding of the digital agenda, what it aims to achieve and how digitalization may benefit the municipality, the digitalization and innovation division has received a more central role in communicating and assisting other divisions in their tasks.

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We have good support from the Digitalization and innovation division. They are very knowledgeable and support us a lot. IT-strategist, Education.

#### *4.2 Configurational contrasting*

As noted by [Zimmermann et al. \(2018\)](#), contrasting refers to the organization counteracting its organization's design through distinct target and monitoring systems, i.e. new, often unsanctioned forms of governance. The configurational contrasting identified in the case was manifested in three practices, i.e. goal autonomy, output control and supervision autonomy.

##### *4.2.1 Goal autonomy.*

We have allocated the resources [into digitalization] but we haven't poked in every [activity's] projects, I don't think we should either. Chairman of the municipal board

The opening quote illustrates that it is seen as the politicians' task to allocate resources into digitalization to facilitate welfare within municipalities in general. However, politicians are adamant to interfere with the decision-making of the divisions because managers and employees know their respective area best and if provided resources would be of best use and have the strongest impact on value-creation. Hence, each division and activity will use the allocated resources in a manner they identify most suitable without the inference of the politicians.

In relation to the previous quote, despite each division's goal autonomy, the organization must still ensure that the investments made into each project is aligned with the municipality's overarching goals. Investments must show and communicate how value is generated for the end-user and that it contributes to a better welfare for the citizens.

The head of local government says that we need to become better at collaborating with the various functions, it's important. If you are active within the functions you steer towards, your goals lead to a result, it has to match [with municipal goals]. Director of IT

However, neither executives nor politicians have the ability to micro-manage every decision or investment in the various divisions and functions of the organization. This would be too time-consuming and again beyond their area of expertise because they do not have the communication with the end-user in the same manner as the divisions' respective managers and employees do. Accordingly, they strive for a more decentralized decision structure where local goal autonomy is preferable to micro-management.

We have an overarching goal, [...] we don't have the resources needed to, in micro-manage every activity or function, neither do we wish to do so. CEO

Finally, there is a positive mindset towards pursuing digital change. If it is possible to implement in terms of competence and resources, there is a strong will to do it.

Then you have a digitalization strategy with our goal. If I and my manager say that it's within our frame, we do it! Director, Social services

##### *4.2.2 Output control.*

Then of course, we want an ROI on the SEK 67 million invested [...], it would be bad if we could only deliver a 50 % effect. Head of digitalization

Despite an identified level of goal autonomy within the municipality, it was stressed that there must be a certain level of output control that ensures that investments contribute to the goals and vision, and, that resources are not wasted in "non-profitable" projects.

*4.2.3 Supervision autonomy.* Related to the identified goal autonomy, where divisions and activities set their local goals aligned towards the municipality's goals and vision, managers provide supervision autonomy to employees to encourage their individual thinking and teamwork to solve tasks and challenges. The director of IT is aware that his support and collaboration with his employees is fundamental to generate new ideas.

I hope they feel that I support them, I rarely create something by myself, so I do hope they feel that I support them [employees] to a hundred per cent. Director of IT

This is reinforced by the CEO who argues that his employees are the real experts when it comes to fulfilling their respective tasks, without him interfering.

As CEO, I try to provide good prerequisites for my associates and give clear goals. Then it's up to the subsidiaries to achieve said goals [...] they know their areas best. CEO

Furthermore, executives, because of their positive mindset on the need for investments into digitalization, have played an important role in creating prerequisites for digitalization and increased innovation. However, they allocate the decision-making in regards to what to specifically invest in to each respective division or activity because too much managerial control might delimit the employees' innovativeness and creativity.

In top-management within the municipality, there is a great understanding that this is something we have to invest in. [...] they have created the prerequisites to actually pull this through. IT-strategist

They own the decision-making mandate within their respective area, so the director of IT, [for example] owns full decision-right mandate within [Digitalization and innovation]. Head of local government

#### *4.3 Configurational exposure*

As noted by [Zimmermann et al. \(2018\)](#) exposure refers to the organization facilitating shared learning and sharing of experiences that generate new ideas in regards to both exploitation and exploration. The configurational exposure identified in the case was manifested in three practices, i.e. socialization, coordination and system.

*4.3.1 Socialization.* Various socialization practices were identified within the municipality. First, the organization has worked hard to facilitate a more horizontal (complementing the vertical) integration. By having this balance, it increases the level of perceived involvement in the digital agenda among employees towards the common goal and hence their understanding of its purpose and value.

It [Communication] does not only concern managers but carriers throughout the organization as well, our operations planning builds upon every employee being involved. Head of local government

Another important change which has been implemented has been the change of name of the IT division to digitalization and innovation. This change of name has implied that when employees hear digitalization and innovation, they think of a supportive and innovation-driven partner within the municipality, not someone who supplies laptops, new passwords or other traditional IT-solutions and services.

I think it's brilliant that the name was erased, it isn't the IT division or the strategists anymore, it's the associates from Digitalization and innovation. Head of digitalization

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In relation to the previous section, the digitalization and innovation division has received a more central role within the municipality to which anyone can turn for aid regarding the digital agenda, the implementation and/or practicing with new software.

It's not about doing things for them but to be a comfortable partner to lean onto, support them to get going so that they can fulfil future tasks more independently. IT-strategist

The idea hub has a similar role to facilitate engagement within the organization. This function allows anyone to submit her idea to a potential solution to an identified problem and is encouraged to be involved in the development of a prototype to solve said challenge.

Here [in the idea hub], it is free, you can challenge any laws and rules you want to. [. . .] we create a sanctuary. Head of innovation, Idea hub

However, not everyone has deemed themselves to be involved in the new socialization practices. One IT manager argued that they are being included too late in initiated projects. At times, the IT service centre has been included the very week the software is to be implemented, whereas it would have been more favourable if they could provide their expertise regarding potential short-comings of the software prior to the launch.

We at IT service centre want a more central role in the development of new services and become more included from the start [in projects initiated by other functions and activities within the organization]. IT-manager, IT service centre

To fully realize the benefits of digitalization, it was stressed that managers should be further included in various socialization practices. The reason for this was that it was argued that many of them might not have a full understanding of the need for digitalization and innovation and automatically say no to commitments they do not recognize or understand, i.e. that fall outside the traditional scope of the IT division.

[To foster innovation and understanding for digitalization], I think we need to have educational programs for managers. I think some of them are a bit lost in this. Innovation leader, Idea hub

Finally, it was stressed that simply sending information sheets or steering documents is not a sufficient strategy to deliver a message regarding the digital agenda or the value of digitalization to foster innovation. One must actively strive for a dialogue with the stakeholders, ensure they understand the message and believe that they can do it through trust and continuously repeat this procedure.

There have to be conversations, we cannot send papers, we need to follow up, dare to test and believe in each other. Head of digitalization.

*4.3.2 Coordination.* To facilitate internal training, a number of coordination practices were identified in the municipality. One example concerns the digitalization and innovation division which, as previously mentioned, has gained a more central role in supporting and teaching surrounding divisions regarding how to use digital technologies or establish a deeper understanding regarding digitalization in general. In doing so, they increase the level of understanding throughout the entire organization to generate additional, new ideas among the employees.

We [social services] have a close collaboration with Digitalization and innovation which is very important to us. They have both supported us and can supplement with knowledge and competence. IT coordinator, Social services

The chairman of the municipal board stressed that it does not lie in the municipality's interest to merely automate processes to save resources, i.e. decrease salary cost. Once such

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a commitment is completed, affected persons can instead be transferred to tasks where human's creative mind is still required to come up with and develop innovative solutions.

If we can automate three-four people turning papers, we could move them to cover more crucial tasks. However, we as an organization need to take the responsibility to competence exchange.  
Chairman of the municipal board.

*4.3.3 System.* Lastly, the municipality invests time and resources into letting the digitalization and innovation division to lead workshops with other divisions. Accordingly, said divisions can establish a deeper understanding of the digital technology they are using. Through this increased understanding, they can better explain and argue how said software can be iterated or further-developed to address future needs.

It has been a huge success factor that we have had workshops with Digitalization and innovation. [...] They present digital solutions that might be of help to us in our work. IT-strategist, Education.

#### 4.4 Summary

Following the findings presented here, the enactment of ambidexterity is found to be the results of the high level of autonomy of middle managers and a lack of direct interference from top management and politicians in configurational matching. For example, while the politicians and top management set the overarching goals and vision for the municipality as a whole, it is up to each respective function within the municipality to ensure that the goals are fulfilled with their respective stakeholders' needs in focus. From the internal perspective, one can see both a configurational matching that, among other things, is aimed to encourage organizational learning, and a configurational contrasting in circumnavigating the formal control to better achieve their goals. For example, the digitalization and innovation department has changed its name from being the "IT division" to more accurately mirror its new function and value, working as a helping hand for the rest of the organization and working to increase the understanding of the changes the digital agenda will entail. We see significant efforts being made to pursue external exploration with stakeholders such as businesses, universities and citizens. For example, collaborations with other municipalities create exposure to new ideas and learning opportunities. This has allowed the individual municipalities to avoid doing the same work another municipality has already tried out and allows them to learn from shared knowledge and experiences. [Table 4](#) presents a summary of the identified configurational practices and corresponding the sub-practices.

## 5. Discussion

This study focuses on the configurational practices associated with the enactment of digital ambidexterity. In terms of the configurational matching, this involves the practices of internal culture, external culture and structural integration. The internal culture practice entailed the sub-practices of conceptualization, communication and safe guarding where establishing a strong conceptual foundation concerning the trade-offs between efficiency and innovation was seen as a basis for balancing. Without insight and buy-in from the co-workers on what is to be balanced, i.e. what differentiates exploitation from exploration, balancing becomes problematic. This is highlighted by [Stokes \*et al.\* \(2015\)](#) and [Cannaerts \*et al.\* \(2019\)](#), yet few other studies have addressed this aspect explicitly in the past. With balancing being enacted through various communication schemes, creating the right communication (i.e. not unidirectional and restricted) also becomes key. In parallel with this, the safe guarding of innovation space is considered necessary. With the existing governance

Configuration	Configurational practice	Sub-practices	Description		
Matching	Internal culture	Conceptualization	Clear definitions of what should be balanced		
		Communication	Clear and wide communication related to the initiative		
		Safe-guarding	Creation of safe-spaces for risk-taking		
		Collaboration	External collaborations with stakeholders		
		Closeness	Inclusion of end-users in projects		
	External culture	Sharing	Sharing and re-use of own/other organizations experience		
		Structural integration	Centrality	Central positioning of the digitalization division	
		Contrasting	Goal autonomy	Scoping	Delimitation of scope of control by executives
			Output control	Goal alignment	Linking projects and investments to overarching goals
				Stewardship	Endowing co-workers with agency
Supervision autonomy	Metrics	Establishing clear metrics surrounding value and benefits of investments			
Exposure	Socialization	Freedom	Instilling degrees of freedom in co-workers		
		Slack	Making sure there is ample slack-resources for the co-workers		
		Trust	Instilling trust in co-workers		
		Horizontal integration	Horizontal integration of the digital initiative so that it is poised centrally		
		Branding	Creation of a new brand for the division without legacy		
	Coordination	Legitimation	Communicating the digital initiative as core business		
		Inclusion	Include problem-owners in the design of solutions		
		Connectedness	Facilitating meetings between functions and divisions		
		System	Involvement	Early involvement of stakeholders	
			Dialogue	Facilitating continuous dialogue with stakeholders	

**Table 4.**  
Summary of  
configurational  
practice and  
identified sub-  
practices

and control in the organization primarily geared towards efficiency rather than innovation (as found in the content analysis), there is a need for re-balancing said governance. In line with this, the acceptance of risk and the creation of innovation safe spaces becomes a sub-practice (Magnusson *et al.*, 2020).

Moreover, matching happens through external culture practices where collaboration, closeness and sharing were identified as sub-practices. Collaboration entails expanding the scope of stakeholders for the municipality, increasing the externalization of work. Ambidexterity thereby becomes an issue not solely for the internal stakeholders but also for the expanded ecosystem surrounding the municipality (Chun *et al.*, 2012). Closeness, however, works with tightening the relationship in various development projects, where the inclusion of the end-user becomes of paramount importance. In addition, the increased connectivity of public sector digitalization creates a necessity for sharing insights with



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neighboring municipalities, as well as being open to importing ideas and artefacts developed in other settings (Yli-Huumo *et al.*, 2018).

Structural integration, as the final practice identified in matching, is manifested in an increased centrality of the organizational entity tasked with driving the digital agenda. By positioning said entity as centrally as possible, the organization signals both that it is of strategic importance (i.e. legitimacy) and it increases the interfaces with other organizational entities. The organization is still using a structural separation strategy for ambidexterity (Birkinshaw and Gibson, 2004; Cannaearts *et al.*, 2019), yet the very positioning of the digitalization division in the organizational scheme is of importance.

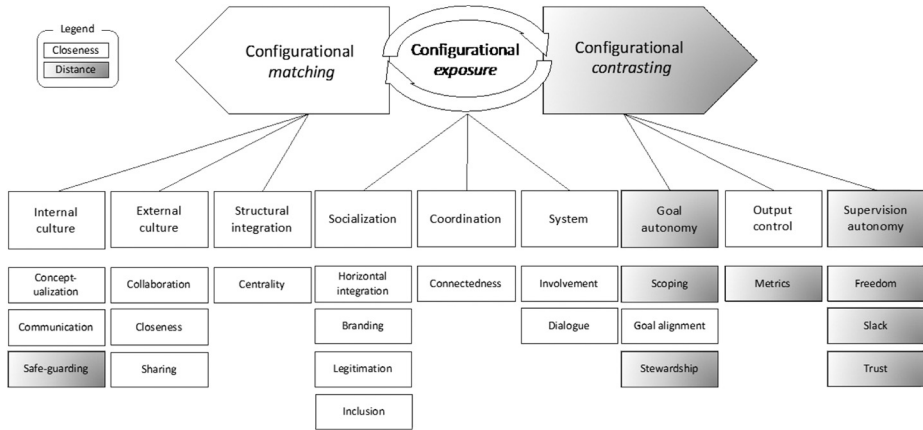
In regards to the configurational contrasting, this is enacted through the practices of goal autonomy, output control and supervision autonomy. Goal autonomy involves the sub-practices of scoping, goal alignment and stewardship. In terms of scoping, this was primarily performed through an acceptance of decentralized mandate in the organization. Executives were clear in assigning agency for investments further and further down the hierarchy, much in line with the literature concerning digital innovation management (Nambisan *et al.*, 2017). Goal alignment was pursued through high-level, often political, goals with significant interpretative viability that would be easy for the projects to align with. Stewardship involved a strive by the organization to imbue the co-workers with the feeling that they were regarded as paramount to the success of the digitalization initiative.

With the organization decentralizing mandate associated with digitalization, it was still necessary to infer a certain amount of output control. This was in direct line with established practices surrounding investment evaluation techniques such as ROI. In terms of the supervision autonomy, this contained aspects of freedom, slack and trust. Freedom in this respect refers to the establishment of certain degrees of freedom of control for the coworker in the digitalization initiative. This was complemented by an identified need for slack, i.e. unspecified resources available in execution (Magnusson *et al.*, 2020). This required a high level of trust in the co-workers actually aspiring for a positive change in line with the goals of the initiative.

Configurational exposure involves practices of socialization, coordination and system. Socialization involves sub-practices of horizontal integration, branding, legitimation and inclusion. Horizontal integration refers to the tightening of relations between divisions in the organization, where forums create natural meeting-spaces between divisions related to digitalization. This is complemented by branding where the new organizational entity tasked with driving digitalization is clearly differentiated from IT, a department which in the case organization was associated with negative connotations for the co-workers. Legitimation is related to the centrality of the new organizational entity and the signaling that this entails. In terms of conclusion, this is seen in the necessity to involve individuals from all functions in the organization from early stages in the process.

### *5.1 Theorizing configuration as a balancing of closeness and distance*

The enactment of ambidexterity that emerges from this study is a balancing of closeness and distance (Blomberg *et al.*, 2007 for an overview) through configurational practices. In relation to Zimmermann *et al.* (2018), ambidexterity is regarded as the dynamic balancing of exploration and exploitation by the organization. This is assumed to be enacted in the front lines of the organization, and the manner in which enactment happens is through what they coin configurational practices. Figure 3 contains a summary of the configurational practices interpreted through the perspective of closeness or distance.



**Figure 3.** Overview of configurational practices in terms of closeness and distance

The predominant form of configuration is signified by an aspiration for increased closeness. Through structural initiatives such as positioning, the new digitalization division with a high degree of organizational centrality, through relational initiatives such as increasing the connectedness, closeness and collaboration, and, through symbolic initiatives such as the branding of the new division and the creation of conceptual clarity, increased closeness is sought. Both configurational matching and configurational exposure are (almost completely) intent on increased closeness. This aspired closeness is supported by the literature surrounding the management of digital innovation where the innately unique digital characteristics instill the need for a new type of inclusive management (Nambisan *et al.*, 2017). Moreover, it is core to the developments surrounding adaptive governance where the integrative role of IT calls for new constellations for value creation (Janssen and van der Voort, 2016).

In regards to the increase of distance, this is less predominant yet still visible in the results. Through initiatives decreasing the scope of control of executives, increasing the amount of freedom and instilling a sense of trust and stewardship in the employees, the organization works with increasing distance to safe-guard slack and actions that fall outside the traditional notion of going-concern. Configurational contrasting is almost completely intent on increased distance. This aspired distance is supported by the literature on organizational slack (Fadol *et al.*, 2015), shadow innovation (Magnusson *et al.*, 2020) and the identified combination of capability building and capability shifting in organizational ambidexterity from Luger *et al.* (2018). In addition, the creation of distance may be considered as an example of the lee-way and temporary misalignment identified as beneficial for digital initiatives in Berente *et al.* (2016) and Yeow *et al.* (2018).

In other words, the identified configurational practices are either intent on increased distance or increased closeness. The interplay between the intentions is deemed of relevance for future studies of the enactment of ambidexterity, particularly with the problems of a necessary co-existence of bureaucratic control and agility as noted by Mergel *et al.* (2018), as well as the co-alignment returns (Posen and Levinthal, 2012; Gulati and Puranam, 2009) and the identified diminishing ambidextrous returns on centralization (Cannaerts *et al.*, 2019). Moreover, these ideas resonate with previous findings from the field of leadership, where leader distance has been identified as a mechanism through which leadership is enacted (Antonakis and Atwater, 2002). The leader needs to balance closeness and distance to

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achieve optimal effects and does so by designing management control and leadership style. The implications of this will be elaborated on in the conclusion.

## 6. Conclusion

This study has sought to explore how digital ambidexterity is enacted through configurational practices. In doing so, we rely heavily on the work of [Zimmermann \*et al.\* \(2018\)](#) and their notion of how three sets of practices (matching, contrasting and exposure) interact to dynamically balance exploration and exploitation. Our study finds that digital ambidexterity (i.e. the balancing of exploration and exploitation in regards to digital initiatives) is enacted through a collection of configurational practices that intermittently align and counteract with the design of the organization. Here, alignment is associated with practices that act to increase closeness, and, counteracting is associated with practices that act to increase distance. On this basis, the enactment of digital ambidexterity is found to involve a balancing of closeness and distance through configurational practices.

There are three implications for future research stemming from this study. First, our findings support the role of configuration practices in the enactment of ambidexterity ([Zimmermann, Raisch and Cardinal, 2018](#); [Cannaerts, Segers and Warsen, 2019](#)) and contribute to a more nuanced understanding of how said practices function in the public sector. This said, we see a combinatory perspective to the enactment of ambidexterity as fruitful for future research. Enactment happens not solely through the activities conducted in the front-line of the organization but through an interplay between organizational design and configuration. Several of the practices found to emanate from executives and are manifested through structural or contextual ambidexterity. Hence, future research needs to better address the interplay between design and configuration and not treat these as incommensurate. An early attempt at approaching this dual approach to configuration and design can be found in [Cannaerts, Segers and Warsen \(2019\)](#) who combine a leadership perspective with the design approach to ambidexterity. In addition, our findings call into question the underlying assumption of [Zimmermann, Raisch and Cardinal \(2018\)](#) that configuration happens during the implementation of ambidexterity. Our findings show that the issues related to ambidexterity are not temporally distinguishable, i.e. ambidexterity is not an initiative but rather a characteristic of an organization. This casts a shadow on any attempt to equate ambidexterity with a sufficiently even distribution of efficiency versus innovation, and limits previous attempts (and the content analysis of this study) to ascertain the ambidextrous balancing point ([Uotila \*et al.\*, 2009](#)). In parallel, it questions the discussion in [Palm and Lilja \(2017\)](#) on if public sector organizations are invariably restricted from being ambidextrous, calling for a nuancing along the lines of [Peng \(2019\)](#).

Second, in regarding enactment of ambidexterity as a balancing of closeness and distance through configurational practices, we believe that we have identified a valuable path ahead for research. This perspective should not be treated as the introduction of yet another paradox to ambidexterity research ([Gregory \*et al.\*, 2015](#); [Peng, 2019](#)), but as a constructive manner through which we can empirically approach the notion of enactment. With increased closeness being the most dominant form of configuration, we suggest that future research test this in other settings (both public and private) to increase our understanding of how the closeness-distance dichotomy is transferable to different contexts and what descriptive power it actually holds. As noted in [Mergel \*et al.\* \(2018\)](#), continued digitalization of the public sector will increase the clash between bureaucratic modes of control and autonomy. Here we see that our findings on the dominance of increased

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closeness (i.e. increased formal controls through bureaucracy) offer a glimpse into how this issue may be alternatively framed.

Third, in relation to the calls for research by [Janssen and van der Voort \(2016\)](#) on adaptive governance, our findings add to the previously identified strategies through suggesting two things. First, the strategies as proposed by Janssen and van der Voort (ibid) are enacted through a combination of configurational practices. Second, the enactment involves an intricate balancing of closeness and distance. We hope that this will be perceived as a viable new perspective for the study of adaptive governance not solely as a design issue, but primarily as a question of configuration ([Zimmermann et al., 2018](#)).

There are two implications for practice and policy stemming from this study. First, the identified practices and sub-practices comprise an overview of repertoires for facilitating digital ambidexterity in public sector organizations. These practices may be used as inspiration for managerial insight into a design and enactment of governance and control that facilitates digital ambidexterity. As such, it would be usable to inform both the design and enactment of ambidexterity as proposed by [Cannaerts, Segers and Warsen \(2019\)](#). In addition, policy-makers should analyze how existing regulation and policies either support or counteract said practices, i.e. if they are poised for or against digital ambidexterity. Here we argue that the notion of closeness and distance becomes a relevant trope for both designing and assessing policy.

Second, the classification of closeness and distance may be used as inspiration for a new perspective to how public sector organizations design their governance and control. With an identified relevance of both these extremes in the enactment of ambidexterity, notions such as increased stewardship, trust and discretion ([Janssen and Borman, 2010](#)) for public sector professionals become necessary to view as parts of a greater whole where the key thing for design becomes the dynamic balancing between the two anti-poles.

There are four major limitations of our research. First, the design of the study is non-longitudinal and hence lacks any of the advantages associated with studying one particular case over a longer period of time ([Lappi et al., 2019](#)). In the studied case, we can expect to see the results of configurational practices change over time, and hence our study is a mere first snap-shot of one particular moment in the advent of the roll-out of a major digitalization initiative. Second, the selection of a large municipality in Sweden has certain limitations in regards to transferability of our findings. As argued by [Bannister \(2007\)](#), contingency factors such as digital maturity, size and institutional parameters are all highly relevant and will invariably inhibit the transferability and generalizability. Our strive in this study has not been to find statistical generalizability, but instead to focus on theoretical generalizability ([Eisenhardt, 1989](#)).

Third, the empirical selection was not made on the notion that the municipality was deemed as successful in its digital ambidexterity. Hence, the results should not in any manner be treated as normative for how to enact digital ambidexterity to achieve some sort of pre-defined success. As noted by [Magnusson et al. \(2020\)](#), all organizations display some sort of ambidextrous capabilities, and on the basis of this we have used the case to show how digital ambidexterity is enacted. The results are in this effect explorative rather than normative.

Forth, the selection of interviewees was as mentioned before restricted to individuals in the capacity of front-line managers with a relationship to digital transformation. We acknowledge that this serves as a limitation of our findings, yet argue that this is a direct consequence of the perspective from [Zimmermann et al. \(2018\)](#) where we have studied how ambidexterity is enacted by front-line managers.

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