Research Article

The Iron Cage of Internal Efficiency: A Content Analysis of Digital Transformation Strategy Direction in Swedish Regions

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This study conducts a content analysis of digital transformation strategy documents from 20 Swedish regions to investigate their strategic direction, with particular attention to the interplay between efficiency and innovation. The findings indicate a prevalent focus on internal efficiency, which aligns with the bureaucratic culture of the public sector. Analyzing 1699 mentions of "digital," the study employs Boolean coding to discern the regions' strategic activities, highlighting a dominant orientation towards exploitation over exploration. This suggests a misalignment with the dynamic capabilities and culture conducive to digital transformation success. The study advocates for a strategic shift towards ambidexterity, balancing efficiency with innovation and adjusting the focus between internal processes and external stakeholder engagement. It emphasizes the need for public sector organizations to reevaluate their strategic approaches and align them with ambidexterity and cultural transformation to realize digital transformation's promise fully. The study concludes with the imperative for future research to investigate the facilitators and barriers to achieving strategic and cultural alignment within the public sector.

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Introduction

Digital transformation represents a strategic shift in how organizations leverage digital technologies to fundamentally alter their operations, culture, and value delivery (Vial, 2019). This phenomenon is

particularly pertinent in the public sector, where it causes organizational and cultural change (Hanelt *et al.*, 2020; Mergel *et al.*, 2019).

Building upon the understanding that digital transformation is a multifaceted and ongoing process, recent research underscores the pivotal role of organizational culture in determining its success. Studies like Bitzer et al. (2021) and Ajigini & Chinamasa (2023) highlight that agility, dynamic capabilities, and cultural alignment are indispensable for strategic renewal and adapting business models in the digital era. However, Tangi et al. (2021) note a frequent underemphasis on cultural transformation in public administration, suggesting a need for a more profound integration of cultural and technological change. This integration, as Warner & Wäger (2019) and Serpa et al. (2022) articulate, influences organizational resilience and innovation, making the transformation of organizational culture a critical factor in navigating the uncertainties and challenges inherent in digital transformation. Thus, an approach that concurrently addresses strategic and cultural aspects of digital transformation emerges as crucial.

Despite its potential, successful digital transformation in the public sector is fraught with challenges, notably due to the inherent bureaucratic structures and cultural norms that emphasize risk aversion, hierarchical decision-making, and a predominant focus on operational efficiency, characterized by its meritocratic structure, rule-based operation, and commitment to uniform service delivery (Gay, 2000; Olsen, 2005). The current organizational culture within the public sector is built upon organizational sediments of Traditional Public Administration, New Public Management, Networked Governance, and Public Value Management (for a comprehensive review, see Lindquist (2022)).

Sedimentation means that many forms of governance exist simultaneously, influencing the bureaucratic culture in the public sector. While ensuring stability and predictability, the characteristics of the bureaucratic culture often lead to a culture resistant to change and innovation. This resistance is further compounded by institutional isomorphism, where public sector organizations mimic each other to gain legitimacy (DiMaggio and Powell, 1983), thereby homogenizing strategies and reducing the propensity for innovative risk-taking. In the context of digital transformation, this creates a significant tension between the need for innovation to meet evolving public demands and the entrenched internal focus on efficiency and compliance, which is not conducive to innovation (Vassilakopoulou and Grisot, 2020). Such tension is critical as digital transformation necessitates technological adoption as well as a cultural and strategic realignment to foster innovation.

The written record is foundational for bureaucracies (Pollitt, 2009), and in the public sector, strategy is commonly articulated through documents. The strategy documents encapsulate the strategic intent (Hamel and Prahalad, 1989), delineating the organization's aspirations and the means to achieve them. However, the content and orientation of these documents are crucial as a prescription for success (Sebastian *et al.*, 2017), as they reflect and reinforce the cultural and operational ethos of public sector organizations. By examining strategy documents, we can gain insights into how public sector organizations conceptualize and navigate digital transformation.

Recognizing the potential of strategy documents in guiding and reflecting transformative efforts, this study seeks to operationalize the concept of "strategic intent" (Hamel and Prahalad, 1989). Strategic intent refers to an organization's future-focused aspirations guiding resource allocation and inspiring collective effort toward long-term objectives (O'Shannassy, 2016). The study seeks to operationalize strategic intent through the tangible "strategic direction" framework. It examines the content of digital transformation strategy documents within Swedish healthcare regions, focusing explicitly on how they address efficiency, innovation, and stakeholder engagement. The analysis aims to understand whether and how the strategic direction outlined in these documents aligns with or diverges from the traditional bureaucratic focus, thereby influencing the organization's ability to balance operational efficiency with innovative practices. This approach is supported by the notion that maintaining an ambidextrous organization — one that effectively balances exploitation with exploration — can be facilitated by organizational culture (O'Reilly and Tushman, 2013).

In sum, this study contributes to understanding digital transformation in the public sector by analyzing the strategic orientation of digital transformation initiatives as articulated in official strategy documents. It aims to uncover the interplay between strategic direction, organizational culture, and digital transformation's inherent challenges and opportunities in a bureaucratic context. Through this lens, we seek insights into how public sector organizations can balance maintaining operational efficiency and fostering the innovation necessary for effective digital transformation.

This research answers the call for more empirical studies on digital transformation in the public sector (Mergel *et al.*, 2019; Tangi *et al.*, 2020; Warner and Wäger, 2019). Specifically, this study contributes to empirical research on digital transformation strategies, answering the call from Chanias et al. (2019). The research question guiding this research:

What is the direction of digital transformation strategies in Swedish healthcare regions?

The remainder of this paper is organized as follows. First, I review previous research related to the areas covered in this study. Next, I describe the method and data collection, followed by the results, where I present the direction of the digital transformation strategies. I conclude with a discussion of the findings, followed by a conclusion with limitations and suggestions for future research.

Previous research

In organizations, cultural and agile transformation plays a crucial role in the success of digital transformation initiatives, according to (Bitzer *et al.*, 2021), who emphasize that digital transformation is an ongoing process that requires agility as the core mechanism for strategic renewal, corresponding to Warner & Wäger (2019). Digital transformation impacts an organization's business model, collaborative approach, and culture. Ajigini & Chinamasa (2023) support this by highlighting that organizational culture significantly predicts the success of digital transformation. A survey study of the Italian public administration by Tangi et al. (2021) indicates that cultural transformation is often missing or that it follows the technical aspect of digital transformation. Thus, a deeper understanding of the relationship between technological and organizational culture and institutional change within rules and regulations is required for digital transformation (Ajigini and Chinamasa, 2023). In the digital context, the crucial antecedents of dynamic capabilities and digital culture (Weritz *et al.*, 2020) are highlighted, further emphasizing the influence of organizational culture on digital transformation.

Furthermore, Warner & Wäger (2019) stress that digital transformation affects organizational resilience through its influence on exploitative and exploratory innovation, ultimately shaping the organizational culture of organizations. This is corroborated by (Serpa *et al.*, 2022), who discuss the challenges and uncertainties that arise from organizational culture transformation in the context of digital changes, highlighting the profound impact of digital transformation on organizational culture. Previous research underscores the critical impact of organizational culture on digital transformation, and it is evident that organizational culture predicts the success of digital transformation and plays a fundamental role in shaping the process.

Recognizing the fundamental role of organizational culture in shaping digital transformation outcomes, it becomes imperative to align this culture with a clearly defined strategy to navigate the complexities and realize the full potential of digital transformation. Therefore, organizations should define a strategy, as demonstrated by the findings of a study of 25 incumbent organizations (Sebastian

et al., 2017). In a study on the successful transformation of three German media companies, Matt et al. (2016) described creating a strategy as a primary concern that should contain four dimensions: (1) the use of technologies, (2) changes in value creation, (3) structural changes, and (4) financial aspects. In addition, Kane et al. (2015) argued that strategy drives digital transformation. In the context of the public sector, Bryson and George (2020) define strategy as "a concrete approach to aligning the aspirations and capabilities of public organizations or other entities in order to achieve goals and create public value". Drawing on Matt et al. (2016) and Bryson and George (2020) and adding a technology dimension, I define the digital transformation strategy within the public sector as *a concrete approach to digital technology-driven changes in public organizations that align intent and capabilities to achieve objectives and create public value*.

The strategic direction used in this paper is a reflection and an operationalization of strategic intent. It's about how the organization's long-term aspirations and purpose are translated into specific paths, decisions, and actions. In other words, strategy is a "pattern in a stream of actions" (Mintzberg, 1987, p. 12). The strategic direction is, therefore, not only shaped by the strategic intent but is also a testament to its implementation and evolution over time. An organization's strategic intent is rooted in its culture (Green, 1988) and shaped by its artifacts, values, and assumptions (Schein, 1988). Thus, culture is crucial in determining the organization's strategic direction by influencing its decision-making processes. When there is a strong alignment between the strategic intent and the organizational culture, the strategic direction is not only a deliberate consequence of the organizational culture but also effectively executed through the actions and behaviors of all organization members. However, although strategic intent, i.e., the strategic direction, can be deliberate, it may be unarticulated in the strategy document.

In the realm of organizational culture, strategic intent embodies an organization's long-term *aspirations*, guiding its actions and resources toward achieving overarching goals (Gemino and Reich, 2023). It is a focused articulation of desired outcomes that shapes organizational values and behaviors, aligning activities with a common vision (Kohtamäki *et al.*, 2021; Seidl and Werle, 2017). As a pivotal driver in digital transformation, strategic intent necessitates aligning digital strategies with broader objectives, necessitating continuous adaptation to technological and environmental shifts (Vial, 2019). Moreover, it demands an acute understanding of internal capabilities and the external environment, leveraging analysis to set strategic priorities and foster stakeholder engagement (Amrollahi and Rowlands, 2017; Mithas and Rust, 2016; Neville and O'Toole, 2015). The dynamics of

strategic intent underscore the importance of constantly reassessing trends and assumptions to stay relevant and effective in strategy formulation and implementation (Bodwell and Chermack, 2010; Schaebs, 2021). In essence, strategic intent is not just an abstract aspiration but a concrete, cultural commitment to a directed path of digital and organizational change.

Pursuing ambidexterity inevitably creates organizational tensions and paradoxes (Peng, 2019). Although efficiency and innovation can coexist (O'Reilly and Tushman, 2013), this is considered the central tension within ambidexterity. A study of managerial responses to ambidexterity in a large telecommunications company found that organizational ambidexterity was seen as simultaneously pursuing innovation and efficiency (Papachroni *et al.*, 2016). Norling et al. (2022a) used ambidexterity theory (March, 1991; Peng, 2019) to study the direction of digital transformation strategies in Swedish municipalities.

March's (1991) exploration of organizational ambidexterity offers a nuanced understanding of how public organizations can navigate the dual imperatives of efficiency and innovation. March's notion, primarily concerned with balancing the exploitation of existing competencies and the exploration of new possibilities, provides a strategic lens through which public organizations can approach their objectives (March, 1991). Subsequent studies have applied this concept to the public sector, examining how institutions can maintain operational efficiency while remaining adaptable and innovative in changing societal needs (O'Reilly and Tushman, 2013; Raisch and Birkinshaw, 2008). Recognizing the inherent challenges of balancing efficiency with innovation, as explored through ambidexterity theory, sets the stage for understanding the broader implications of such a balance in terms of public value creation.

Public Value, introduced by Moore (1995), redefines public sector management objectives and success measures by emphasizing value creation for the community, encompassing diverse societal goals and public needs. This paradigm shift from traditional efficiency-driven models to value-oriented strategies significantly influences how strategic intent is conceptualized in the public sector. Building on Moore's work, research has explored how public managers can effectively align organizational capabilities with community aspirations, fostering trust and legitimacy in public institutions (Benington and Moore, 2011; Williams and Shearer, 2011). A recent study on the co-production of the digital transformation of public sector organizations in Denmark (Scupola and Mergel, 2022) highlights four types of public value: (1) economic value, the output of public administration; (2) administrative value, a procedural perspective; (3) societal and democratic value; and (4) citizen value.

As innovation concerns value creation, it is essential to distinguish between different value types because it can affect the initiatives, capabilities, and goals that organizations should pursue. Research argues that pursuing public value necessitates an ambidextrous approach, where public managers must skillfully balance the efficient delivery of services with the capacity for policy innovation and adaptive change (Pablo *et al.*, 2007). That suggests the strategic direction in public organizations should be guided by the principles of public value and underpinned by the structural and cultural flexibility advocated by March (1991). Thus far, we have shown the relationship between public value and organizational ambidexterity; we now introduce the competing values framework. This model categorizes organizational cultures to further refine the strategic direction in the public sector with an orientation towards service and societal outcomes.

The Competing Values Framework (CVF), conceptualized by Quinn and Rohrbaugh (1981), has been instrumental in delineating the cultural contours of organizations across sectors. It identifies four primary organizational cultures—Clan, Adhocracy, Market, and Hierarchy—each with distinct values and operational emphases. When applied to the public sector, the CVF has been adapted to align with the sector's unique focus on service delivery, public accountability, and societal outcomes, diverging from the market-centric orientation prevalent in private sector paradigms. In previous research, Lindquist and Marcy (2016) explored how the CVF could be used by public service leaders to analyze and understand public sector leadership challenges, thereby improving their ability to lead across borders and generations. Recently, Lindquist (2022) employed and modified the CVF to classify public service reform initiatives and their associated value systems and organizational cultures within the context of digital-era governance (Dunleavy, 2005; Dunleavy and Margetts, 2023; Margetts and Dunleavy, 2013).

The public sector CVF research offers insights into the framework's adaptability and relevance, highlighting the importance of cultural dimensions in guiding strategic direction. Balancing efficiency and innovation within unique cultural contexts adds crucial dimensions to understanding strategic direction. In other words, the CVF helps understand public service complexity and how to bring about change (Lindquist, 2022). In addition, Hartl and Hess (2017) identified three cultural orientations: (1) externally oriented, (2) flexible and adaptable, and (3) internally directed, similar to the CVF and the strategic direction framework by Norling et al. (2022).

Method

Population study utilizing content analysis of strategy documents. The Swedish regions' digital transformation strategy documents were chosen, and the rationale was fourfold: Firstly, their representativeness of the public sector was considered important, as they manage healthcare, dental care, public transport, and regional development. Secondly, the regions have similar rules and strategy documents, making them comparable. Thirdly, the researcher's language skills, expertise, and knowledge of Swedish regions contributed. Finally, no prior empirical research on Swedish regions and their digital transformation strategies is known to the researcher.

Population background

Swedish regions governed by elected parliaments oversee healthcare, dental care, regional development, and public transportation. Often, they manage culture, education, and tourism. They possess self-governance and tax-levying rights. In 2020, the 21 Swedish regions had a turnover of €35 billion, primarily from taxes (SKR, 2021a). Historically, approximately 3% of expenses have been allocated to IT (SLIT, 2023). The regions employ 290,000 people, 70% of whom are healthcare professionals (SKR, 2021b). The remaining 30% of the workforce is in administration, support, shared services, regional development, public transport, culture, and tourism.

Strategy documents are decided and approved by the region's political assemblies, and strategies are one of the highest hierarchical forms of steering documents, only superseded by policy documents. Accompanying plans and follow-ups are usually the responsibilities of the top management team. In the case of digital transformation strategies, that would most often be the CIO/CDO.

Data collection and categorization

Data on digital transformation strategies was obtained from 21 regions by downloading them from websites or requesting public documents. Halland, representing 3.3% of Sweden's population, had no strategy and was excluded. This data loss was deemed acceptable for research purposes.

This study covers the aspect of strategic direction through strategy documents. Strategic direction uses activity and focuses on categorizing the expressions of intent related to digital transformation (i.e., direction). In the first dimension, action can be directed toward efficiency (exploitation) or innovation (exploration). The second dimension, focus, can be directed externally toward the region's

primary stakeholders, citizens, patients, etc., or internally toward organizational stakeholders. The direction of a digital transformation strategy can be interpreted in two dimensions, as illustrated in Figure 1.

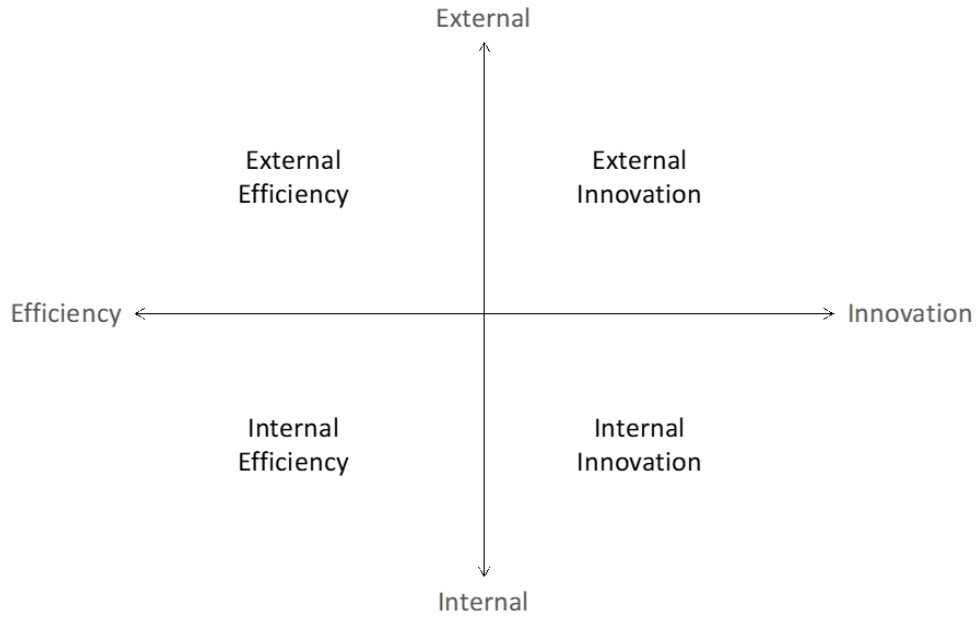

Figure 1. The direction of digital transformation strategies

Document analysis was employed to skim, read, and interpret the collected data (Bowen, 2009). This iterative process combines elements of thematic analysis (Alhojailan, 2012) and content analysis (Weber, 1990), with the latter being the most prominent.

The researcher became acquainted with the data through multiple readings of the strategy documents, subsequently coding them using Atlas.ti. The search across 20 strategy documents, totaling 284 pages and 62,834 words for "digital *," yielded 1,699 instances. These were analyzed from a strategy-as-practice perspective (Whittington, 1996), focusing on coding statements that were action-oriented. The analysis differentiated between goal-setting/resource allocation and creating value for internal versus external stakeholders.

In the coding process, data were also cleansed of generalized and non-directive statements, such as "Digitalization is the single strongest change factor of our time and affects our entire society". Exclusions also applied to statements about the national level, aligning with the study's regional

focus. Additionally, statements from digital transformation strategies co-authored with other external public sector organizations that were not region-specific were omitted. These eliminated instances were categorized as Not Applicable (NA). Post-cleanup, 382 instances of "digital*" remained for further analysis.

Boolean coding was applied to dissect two dimensions of digital transformation: direct stakeholder value (external or internal) and the type of activity (exploitation or exploration). Direct stakeholder value was ascertained through stakeholder analysis, while the classification of activity drew from March's (1991) distinction. Exploitation activities, such as cost savings, quality improvements, and process enhancements, were coded as "efficiency". Conversely, "innovation" was used for exploration activities, encompassing experimentation, purposefulness, and innovation. The mean positions for each dimension were calculated from the coded instances, culminating in the final representation of the digital transformation position/direction for each region, illustrated in Figure 2.

A total of 64 ambiguous or borderline cases were rigorously coded. These instances were thoroughly deliberated in a workshop with a senior researcher. Senior researchers also served as critical reviewers and auditors throughout the process, leading to significant discussion and refinement of the coding and analysis (Saldaña, 2013). The final revised coding informed the analysis of the results. The findings of this study are currently presented through descriptive statistics, with more comprehensive analyses (such as regression) intended for future research.

Results

The general direction of digital transformation strategy documents communicates the current strategic focal points of the regions. Swedish regions' mean digital transformation strategy focuses primarily on internal efficiency. The mean strategy balances external and internal focus (32% vs. 68%) and efficiency vs. innovation activities (86% vs. 14%). As shown in Figure 2, the strategies are almost unanimously focused on internal efficiency. That is, per se, neither good nor bad, but it begs the question of whether internal efficiency is the deliberate strategic intent of the regions.

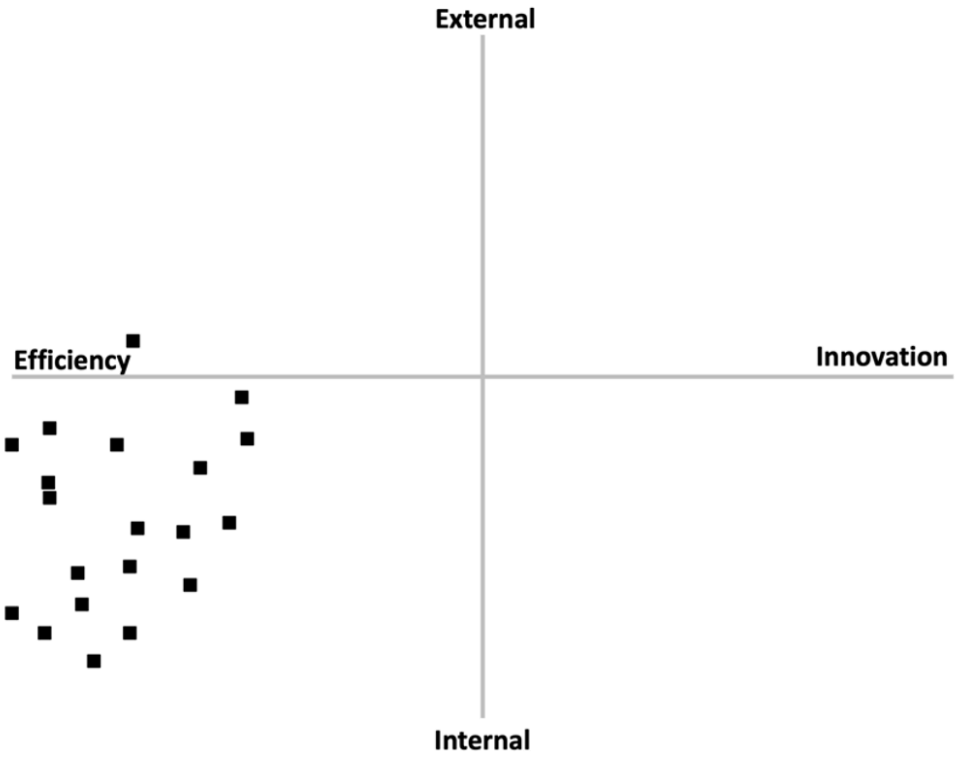

Figure 2. Direction of regional digital transformation strategies

The Swedish regions and their digital transformation strategies display a pattern of efficiency encumbrance.

The median frequency for digital* sentences per page (SPP) is lowest for the region with a negative result, only 3 SPP. The highest for regions with a positive result is 10 SPP, with a balanced positive following with 8 SPP. This is somewhat surprising as the direction of most regions is on internal efficiency, which would be assumed for a region with a negative financial result.

Population density influences SPP, with Mid-density regions leading with 10 SPP, followed by low-density regions at 8 SPP. High-density regions have the lowest SPP at 5, half that of the Mid-density regions.

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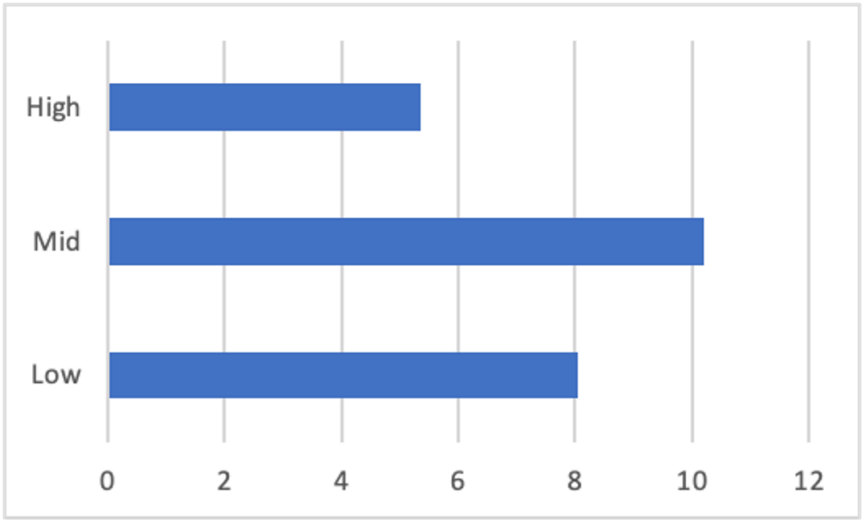

Figure 3. Population density

Financial result and strategic direction

The financial result (see Figure 3) impacts the direction (mean value, SEK per inhabitant). It shows that the single region with a negative result focuses almost entirely on internal (89 %) efficiency (96 %), which is not surprising. Regions with a balanced result (0 - 2999 SEK per inhabitant) have almost the same focus on efficiency (only 1 pp less) as those with a positive (3000 - 6500 SEK per inhabitant). There is a significant difference in emphasis on external vs. internal stakeholders for regions with a positive result of External focus (9 pp) compared with regions having a balanced positive result. The conclusion is that regions with a positive financial result have a greater emphasis on innovation and external stakeholders, probably because they can afford it, compared to those with a negative result, leading to political demands to enhance internal efficiency.

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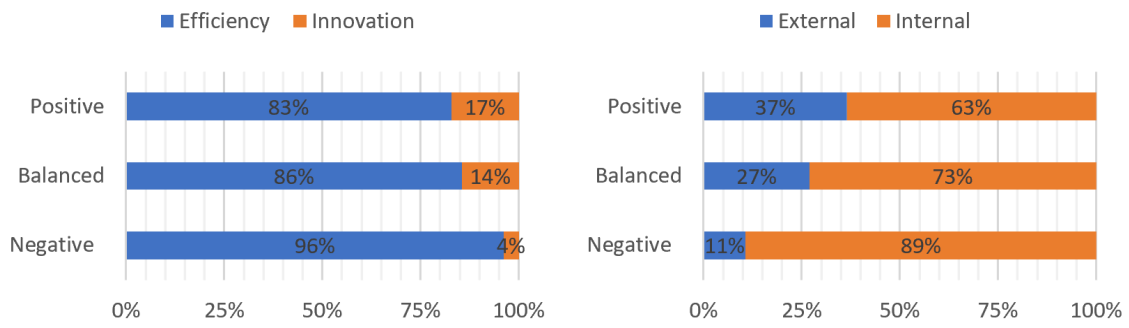

Figure 4. The direction of the digital transformation strategy, financial result

Population density and strategic direction

The three metropolitan regions of Sweden, with the three largest cities, Stockholm, Gothenburg, and Malmö, represent regions with a high population density. These regions have a significantly higher ratio of efficiency (96 %) vs. innovation (4 %) than the rest of Sweden. There is also a considerably stronger emphasis on internal stakeholders (17 pp) compared to the mid-density and low-density regions (10 pp). The regions with mid-range population density focus more strongly on innovation (16 pp) than the high and low population-density regions (8 pp). Meanwhile, the emphasis on external stakeholders is most substantial for Mid (34 %), followed by Low (30 %) and High (21 %). This can be interpreted as the mid-range regions being big enough to have the necessary resources to balance efficiency vs. innovation and small enough to stay coordinated and focused on the external stakeholders.

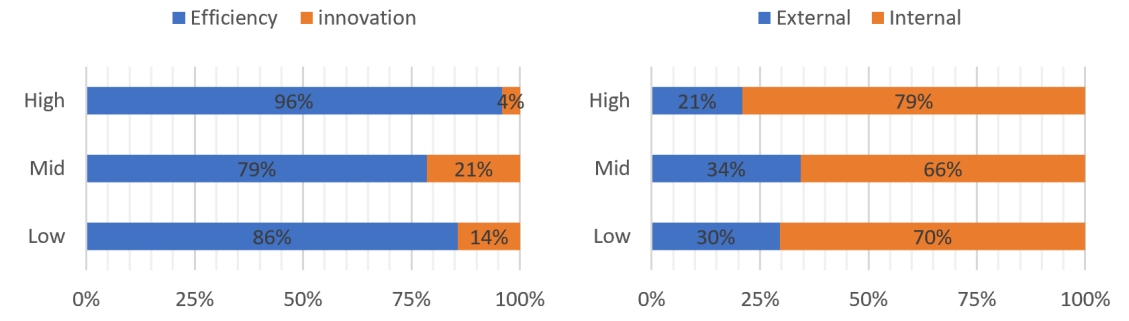

Figure 5. The direction of the digital transformation strategy, population density

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Discussion

This study addresses the question of the strategic direction of digital transformation in Swedish regions. The findings reveal a pronounced focus on internal efficiency within digital transformation strategies, consistent with Norling et al. (2022) regarding the strategic orientation of Swedish municipalities. This focus indicates a pervasive trend toward optimizing current operations within the constraints of existing bureaucratic structures. The research findings validate the notion that public sector organizations are subject to isomorphic pressures, conforming their strategies and culture to established norms (Ashworth *et al.*, 2007). This isomorphism creates an invisible "iron cage" that makes strategic deviation and innovation challenging unless the strategic direction is explicitly articulated and made actionable.

Furthermore, the study reveals the impact of contingency factors such as financial results and population density on the strategic direction, although to a lesser extent than anticipated. Notably, there is a marked prevalence of “digital” in the strategies, where regions facing financial constraints have a significantly lower emphasis on digital initiatives than financially stable regions. This discrepancy could stem from a perception of digital initiatives as inherently risky (Li, 2020), leading financially constrained regions to prioritize stability over innovation, reflecting the prevalent risk-averse behavior in the public sector. Alternatively, the lower emphasis on digital aspects in these regions could be attributed to the high costs associated with digital transformation, leading to its postponement until financial conditions improve.

However, despite recognizing the importance of a digital transformation strategy as a cornerstone for creating the conditions for transformation, the public sector's inherent bureaucratic logic often traps strategy direction into a narrow focus on internal efficiency. This focus is primarily on the values of economic and internal processes, which, while important, may overshadow the need for innovation and adaptability. Consequently, instead of fostering an environment conducive to ambidexterity, where efficiency and innovation are balanced, the strategies often result in “more of the same.” Bureaucracy creates red tape that impacts behavior (Campbell *et al.*, 2022) and erects cultural and structural barriers to change (Wilson and Mergel, 2022). In this context, digitalization may inadvertently enforce new forms of “digital red tape”, replacing old bureaucratic hurdles with new ones and further entrenching existing structures (Bauwens and Meyfroodt, 2021).

In this backdrop, the strategies often fail to deliver on the promise of public value creation. They remain entrenched in an “iron cage” of internal efficiency, focusing primarily on economic and administrative value and overinvesting in maintaining, i.e., exploiting, the status quo at the expense of exploring what could be. This approach reflects a broader organizational mindset where "the known informs strategic choice: the unknown is ignored" (Stopford and Baden-Fuller, 1994, p. 528). Such a mindset presupposes that past successes will continue into the future without necessitating significant strategic or cultural shifts. This resistance to change is further reinforced when organizations believe they are already meeting society's demands, thus resisting calls for change or innovation (Fox-Wolfgramm *et al.*, 1998).

Yet, amidst these challenges, the dynamic capability of ambidexterity (O’Reilly and Tushman, 2008) emerges as particularly valuable for managers and organizations aiming to navigate and succeed in the complex digital transformation landscape. The study recommends three approaches to foster this ambidexterity within public sector organizations: contextual ambidexterity, hybrid ambidexterity, and digital ambidexterity. Contextual ambidexterity involves fostering a culture and leadership style that encourages simultaneous exploration and exploitation within the same organizational unit. This means that departments and teams are encouraged to innovate (exploration) while optimizing current operations (exploitation). On the other hand, structural ambidexterity requires deliberately separating explorative and exploitative activities into different organizational units, such as creating separate innovation and production units. As the second approach, hybrid ambidexterity combines contextual and structural ambidexterity (Jöhnk *et al.*, 2022), offering a versatile alternative that allows adaptability and structural delineation. Digital ambidexterity (Magnusson *et al.*, 2020, 2021), as the third approach, refers to an organization's ability to handle tensions related to managing established organizational activities while simultaneously engaging in rapidly changing new digital activities. It is seen as a necessary capability for public sector organizations to adapt to digital disruption and transformation, balancing the need for stability with the imperative for change. This concept emphasizes the enactment of dynamic and continuous balancing of exploration and exploitation rather than achieving a static equilibrium between the two.

Implementing these forms of ambidexterity requires clear leadership and cultural support. Contextual ambidexterity can be promoted by increasing organizational risk appetite (Poláková-Kersten *et al.*, 2023), enhancing organizational members’ risk propensity (Rauch *et al.*, 2017), supporting a culture that tolerates and learns from failure (Duerr *et al.*, 2018), and communicating the value of innovation

and efficiency. Structural ambidexterity, however, necessitates a strategic decision by management to create distinct units with different focuses and mandates, which can then be brought together to integrate innovative solutions into the broader organizational structure. Hybrid and digital ambidexterity require an agile management approach that dynamically adjusts the balance between exploration and exploitation as organizational needs and external conditions evolve.

To guide and facilitate these ambidextrous strategies, the proposed Strategic Direction and Culture Mapping (SDCM) framework, see Figure 6, integrates the concept of strategic direction with the Competing Values Framework. This integration offers a model for understanding how public sector organizations can effectively balance various operational and strategic demands during digital transformation. SDCM is based on the recognition that an organization's strategic direction is not merely a path or a set of goals but is deeply interwoven with its cultural attributes, competencies, and values. This integrated approach allows organizations to map their strategies against the competing values of internal processes, external positioning, flexibility, and stability to ensure a comprehensive alignment between culture and strategy for effective implementation and transformation (Cameron and Quinn, 2011; Norling *et al.*, 2022).

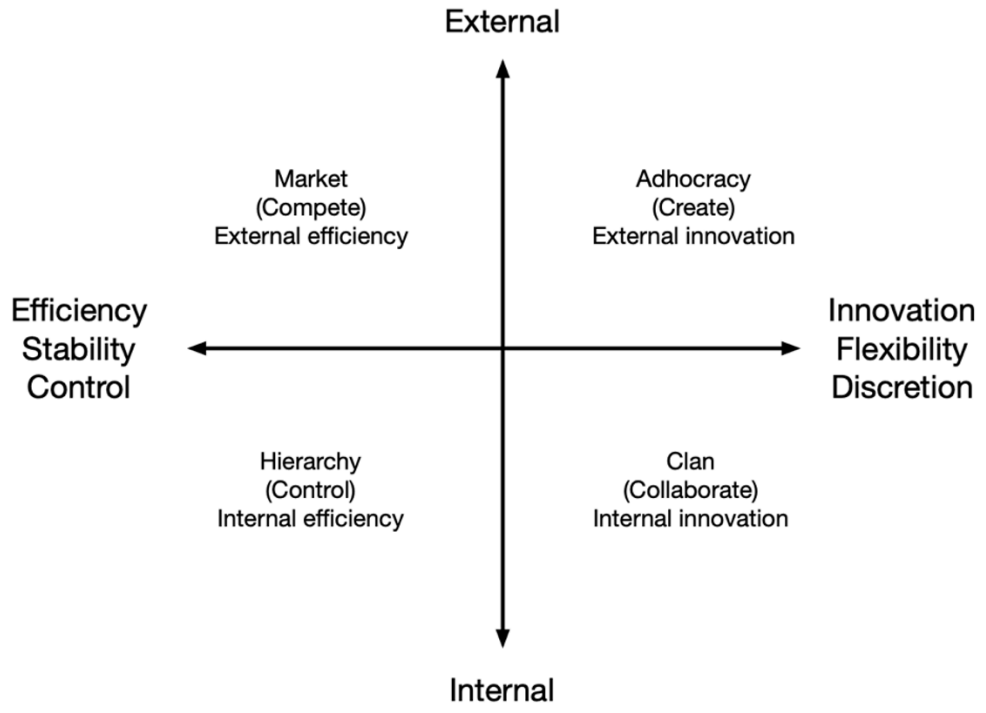

Figure 6. *Strategic Direction and Culture Mapping (SDCM) based on* Competing Values Framework (Cameron and Quinn, 2011) combined with strategic direction (Norling *et al.*, 2022)

The SDCM characterizes organizations along two axes: internal-external and flexibility-control. The intersection of these axes results in four quadrants representing different organizational types: Hierarchy (control), Market (competition), Adhocracy (create), and Clan (collaborate). Each type consists of distinct values and operational modes influencing an organization's strategic direction. Hierarchy emphasizes internal efficiency, stability, and control, often at the expense of external stakeholders and innovation. Market aims for external efficiency, striving to outperform competitors and meet market demands while prioritizing public value and service quality. Adhocracy focuses on external innovation and flexibility, encouraging organizations to be adaptable and embrace change, thus fostering an environment conducive to digital transformation. Clan values community, shared goals, and internal cohesion, emphasizing the role of organizational culture and internal consensus in driving transformation efforts.

In practice, this means that public sector organizations would benefit from analyzing and understanding the existing cultural dynamics, particularly between operations and IT and digital

departments, to make the cultural gaps and differences explicit. A comprehensive understanding of what a digital organizational culture entails vis-a-vis their existing organizational culture can significantly enhance their ability to align strategic direction with cultural imperatives. Many organizations stand to gain from a nuanced understanding of how their current organizational culture supports or hinders digital transformation efforts and what changes might be necessary to foster a more conducive environment for innovation and change.

However, the study is not without limitations. It primarily examines current organizational digital transformation strategies within Swedish regions, suggesting a need for a broader exploration across different organizational sectors and over time. This limitation points to the necessity of longitudinal or historical studies to understand strategies' evolution and impact. The SDCM framework emphasizes the importance of strategy documents in bridging current objectives with future aspirations, facilitating a strategic dialogue aligning organizational actions with strategic intent, which, however, may not capture the informal practices and emergent strategies that significantly shape organizational outcomes.

Five future research paths are envisioned to address the limitations: (1) In-depth analysis to confirm the robustness of observed patterns, (2) studies on the process of formulating digital transformation strategies, and (3) exploration of explicit and implicit strategic assumptions is crucial. (4) Replicating this study in other geographical and organizational contexts and (5) using the strategy document as a communicative object in strategic dialogue present promising avenues for further research.

In conclusion, the SDCM framework provides a robust and flexible tool for public sector organizations seeking to navigate the complex terrain of digital transformation. By mapping the CVF to strategic direction, the framework highlights the imperative for a balanced approach that incorporates efficiency, competition, innovation, and collaboration. It underscores the need for organizations to move beyond the confines of the “iron cage” to a more holistic, adaptive, and innovative model of public service delivery. This approach addresses the immediate challenges of digital transformation and sets the stage for a more dynamic, responsive, and citizen-centric public sector capable of meeting the evolving demands and opportunities of the digital age.

Conclusion

The study concludes with the pivotal finding that the strategic emphasis on internal efficiency within Swedish public sector organizations' digital transformation efforts is deeply ingrained in the

bureaucratic tradition. This prevalent focus contradicts the flexibility and innovation required in today's digital landscape. The analysis of strategy documents underscores a need for a shift toward ambidexterity, emphasizing a balanced approach to public value creation that encompasses both efficiency and innovation.

The research points to a significant need for a technological shift that simultaneously addresses cultural and structural change. For Swedish regions to break free from the "iron cage" of internal efficiency, there must be a concerted effort to move beyond entrenched bureaucratic norms. This entails adopting strategies that foster a culture of exploration and risk-taking alongside exploiting existing resources and capabilities.

Future research should build on these findings by examining practical strategies for fostering an ambidextrous culture within the public sector. It should seek to understand the processes and interventions that can facilitate a departure from traditional efficiency-centric models toward more dynamic, innovation-oriented practices. Furthermore, it should explore the long-term impact of such a strategic and cultural shift on public value creation and overall organizational performance. By continuing to emphasize the importance of culture, future studies will contribute to a more comprehensive understanding of the digital transformation process in the public sector.

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Declarations

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.