

## Article

# Navigating Change: Experiences of Digitalisation Projects Within the Swedish Transport Administration

Fredrik Molin <sup>1,2,\*</sup> and Eva Norrman Brandt <sup>1</sup>

<sup>1</sup> IPF, The Institute for Leadership and Organizational Development, Uppsala University, Kungsängsgatan 5B, 753 22 Uppsala, Sweden; eva.brandt@ipf.se

<sup>2</sup> Department of Medical Sciences, Occupational and Environmental Medicine, Uppsala University, 752 37 Uppsala, Sweden

\* Correspondence: fredrik.molin@ipf.se

**Abstract:** Background: Digital transformation has emerged as an important theme in contemporary organisational studies, particularly within public sector institutions striving to enhance operational efficiency, improve service delivery, and foster innovation. This study aimed to explore the experiences of key actors within the Swedish Transport Administration, focusing on the challenges and opportunities associated with digital transformation. The research questions were as follows: (1) How do key actors perceive the effectiveness of the organisation's management control systems in supporting digitalisation efforts? (2) What challenges and opportunities do key actors identify in the project management approach for implementing digital transformation initiatives? (3) How do key actors view the alignment between project-level goals and the Administration's overarching strategic goals for digitalisation? Methods: The study employed a qualitative approach, conducting semi-structured interviews ( $n = 18$ ) with participants from the Administration. Data from the interviews were analysed using an open coding approach. Results: The findings revealed that (1) respondents favour a more centralised and cohesive approach to management control, (2) there is a notable lack of expertise in change management, and (3) alignment between strategic and project-level objectives is insufficient, creating challenges in ensuring consistency and coherence in the implementation of digitalisation efforts. Conclusions: The results shed light on issues regarding management control, prioritisation, and the coordination of digitalisation efforts within a public sector administration.



Received: 25 November 2024

Revised: 2 January 2025

Accepted: 2 January 2025

Published: 6 January 2025

**Citation:** Molin, F., & Norrman Brandt, E. (2025). Navigating Change: Experiences of Digitalisation Projects Within the Swedish Transport Administration. *Administrative Sciences*, 15(1), 18. <https://doi.org/10.3390/admsci15010018>

**Copyright:** © 2025 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

**Keywords:** digitalisation; public organisation; management control; Sweden; qualitative method

## 1. Introduction

Digital transformation has emerged as an important theme in contemporary organisational studies, particularly within public sector institutions striving to enhance operational efficiency, improve service delivery, and foster innovation (Yang et al., 2024). With the increasing rate of change and digitalisation within society (Kotter, 2012; Palmer & Kaplan, 2013; Iveroth & Hallencreutz, 2020), it is important to comprehend the implications of these developments in a public setting. The public sector faces the challenge of adapting its services, policies, and structures to keep pace with technological advancements (Kitsios et al., 2023).

Management control systems (MCSs) are integral to the successful implementation of digital transformation initiatives. These systems encompass a range of tools and processes that organisations use to ensure their strategies are effectively executed (Malmi & Brown,

2008). In the context of digitalisation, MCSs can facilitate the alignment of resources, processes, and outcomes with strategic objectives. According to Ferreira and Otley (2009), effective MCSs can enhance organisational performance by providing relevant information to support decision-making. Research indicates that the perception of MCS effectiveness is influenced by several factors, including organisational culture, communication channels, and the involvement of key actors in the design and implementation of these systems (Ahrens & Chapman, 2007). Furthermore, opportunities for innovation and efficiency arise when organisations embrace digital tools and collaborative platforms (Omol, 2024). Gann and Salter (2000) emphasise the importance of knowledge sharing and collaboration in project environments, which can enhance problem-solving and drive innovation within organisations.

A challenge in the public sector is the projectification of government activities, which adds complexity and fragmentation to governance (Jensen et al., 2016). As societal demands grow more diverse, governments must manage multiple projects to address issues and deliver services. However, this proliferation of initiatives can lead to duplicated efforts and difficulties in coordinating resources and priorities across departments (Godenhjelm et al., 2015). These issues underscore the need to understand the dynamics of projectification in public governance and its implications for digital transformation. The temporary nature of projects complicates continuity and sustainability, potentially undermining their long-term impact (Jensen et al., 2016). This issue is particularly critical in the context of digital transformation, where the alignment between project-level goals and strategic objectives is essential. Kaplan and Norton (2001) propose the use of the balanced scorecard framework as a tool to align projects with strategic priorities. Misalignment, as noted by Hrebiniak (2006), can result in wasted resources and project failure, making clear communication channels and performance metrics critical. Leadership also plays a pivotal role in fostering alignment. Kotter (1996) emphasises that effective leadership is instrumental in creating a shared vision and securing stakeholder commitment to strategic goals.

In the context of digital transformation, the alignment of project-level goals with strategic objectives also requires addressing the evolving nature of technology and market demands. As organisations navigate the complexities of digitalisation, it is essential to maintain flexibility and adaptability in project planning and execution (Teece, 2007). Such adaptability enables organisations to respond proactively to changes in the external environment while ensuring that their digital initiatives remain closely aligned with strategic priorities (Zhang et al., 2023).

The adoption of management control and project management systems from the private sector has become increasingly prevalent in the public sector as a response to a constantly evolving environment (Felicio et al., 2021). These systems often include organisational structures, strategies for innovation and implementation, and leadership development (Ibid.). This shift is part of the broader trend known as New Public Management (NPM), first introduced by (Hood, 1991), which advocates a more service-oriented and cost-effective approach in public organisations. However, efforts to control and measure activities in sectors such as healthcare and education have been less effective (SOU, 2019:43). In 2016, the Swedish government launched an investigation to explore new ways to capture professional expertise in knowledge-based and professional organisations, such as schools and healthcare. This was prompted by the recognition that attempts to micromanage and measure efficiency in these areas have often resulted in a distorted view of actual effectiveness (SOU, 2019:43).

Otley (1999) offers a framework for analysing and understanding management control systems (MCSs) within organisations, focusing on how different components interact

together to guide and control activities towards achieving strategic goals. The framework revolves around five key questions that address critical aspects of the control process:

1. What are the organisation's primary objectives?
2. What strategies and plans have been implemented by the organisation to reach these objectives?
3. What are the key performance measures and indicators?
4. What rewards or incentives are in place to motivate individuals?
5. What information flows, feedback mechanisms, and control processes are utilised?

Otley's (1999) framework underscores that management control goes beyond financial metrics, incorporating strategic, behavioural, and operational dimensions. It also highlights the interdependence of these five elements, where changes in one component can influence the others. Ultimately, the framework provides a structured method for evaluating an organisation's control system, ensuring the alignment of behaviours and decision-making with its strategic objectives.

The concept of digital transformation encompasses more than just the adoption of new technologies; it entails rethinking how organisations operate and deliver value to their stakeholders (Yang et al., 2024; Zhang et al., 2023). This transformation often necessitates changes to organisational structures, processes, and mindsets, as well as the development of new skills and competencies (Alvesson & Willmott, 2002).

Key actors are individuals who play significant roles in managing and implementing digital transformation initiatives within organisations. These include decision-makers, project managers, and IT specialists, i.e., those whose contributions are essential for the success of such initiatives (Fitzgerald et al., 2014). These actors possess various skills and experiences that are important for digital transformation. They contribute to activities such as setting strategic goals, engaging stakeholders, and securing the resources needed for digital initiatives (Westerman et al., 2014). IT specialists, in particular, provide the technical expertise necessary for deploying digital technologies. Their insights into technological trends and practical knowledge help organisations use digital tools effectively to improve efficiency and service delivery (Matt et al., 2015).

There is a notable lack of research specifically examining the experiences of key actors in navigating digitalisation initiatives within large, complex public organisations. Most existing studies focus on the technical, financial, or strategic aspects of digitalisation (e.g., Ismail et al., 2017) without adequately addressing the human factors and management control challenges faced by those directly responsible for implementing these changes. As such, the role of key actors—individuals directly involved in the planning and execution of digital initiatives—is increasingly critical. Their insights and experiences offer valuable lessons for understanding the complexities of digital transformation and the factors that influence its success or failure. Understanding how key actors perceive the effectiveness of MCSs in supporting digitalisation is crucial for identifying their impact on public organisations. Chenhall (2003) highlights that organisations with adaptive MCSs are better positioned to respond to the dynamic nature of digital transformation, suggesting that management control frameworks can be used to manage digitalisation efforts within an organisation.

By integrating these theoretical perspectives, this study advances the understanding of how public organisations navigate the complexities of projectification and achieve alignment between strategic and project-level objectives in digital transformation.

The aim of this study is to investigate the experiences of key actors within the Swedish Transport Administration as they navigate the complexities of digital transformation. By examining their perceptions of the Administration's management control systems and project management strategies, the study seeks to illuminate the dynamics that characterise the

implementation of digitalisation efforts. Specifically, it addresses three research questions: (1) How do key actors perceive the effectiveness of the organisation's management control systems in supporting digitalisation efforts? (2) What challenges and opportunities do key actors identify in the project management approach for implementing digital transformation initiatives? (3) How do key actors view the alignment between project-level goals and the Administration's overall strategic objectives for digitalisation?

## 2. Materials and Methods

### 2.1. Setting

This study was conducted within a Swedish governmental agency: the Swedish Transportation Administration. This organisation is responsible for the long-term planning of infrastructure for road traffic, railways, shipping, and aviation, as well as the construction and operation of state roads and railways in Sweden. It has an operating budget of approximately SEK 90 billion (approx. EUR 10 billion) and has roughly 10,000 employees with diverse backgrounds. The Administration was created in 2010 through a merger, primarily between the Swedish Road Administration and the Swedish Railroad Administration ([Annual Report, 2023](#)).

The Administration is organised into six central functions, six business areas, and four profit centres. The business areas are planning, traffic, maintenance, investment, large projects, and ICT. Planning oversees the development of state infrastructure for roads, railways, shipping, and aviation. Traffic monitors and directs traffic on roads and railways. Maintenance manages, maintains, and develops the road and rail network, as well as its technical systems. Investment is responsible for procurement, implementation, and follow-up of major reconstruction measures and new investments. Large projects is responsible for procurement, implementation, and follow-up of larger new investments exceeding SEK 1 billion. ICT manages IT infrastructure and oversees the technical administration of IT solutions ([Annual Report, 2023](#)).

Examples of major ongoing and partially implemented digitalisation projects within the Administration include joint maintenance allowance, market-adapted capacity planning, and digital graph for traffic control. Joint maintenance allowance is a system designed to support maintenance work on roads and railways. It integrates several IT components that together contribute to the total system support. Market-adapted capacity planning is a business development project that, in collaboration with the industry, develops new digital solutions for more efficient, faster, and transparent capacity planning on railway tracks. Digital graph is a system designed for train management and traffic control, which is being introduced at the traffic control centres within the Administration. The tool is based on digital graphs and calculations to help traffic controllers generate updated arrival and departure times.

### 2.2. Sampling and Data Collection

A purposive sampling strategy ([Suri, 2011](#)) was employed to select participants representing various roles within the Swedish Transport Administration's digital transformation projects. This strategy enabled the selection of individuals based on characteristics relevant to the study's focus. Participants were chosen based on specific inclusion criteria, including their involvement in ongoing projects, their roles within the organisation, and their contributions to digital transformation initiatives. This approach aimed at improving the credibility of the data. In addition, it allowed for adjustments in participant selection as the study progressed.

With the support of an internal project leader, interviewees engaged in digital transformation were selected. Some respondents had been with the Administration for many years,

while others were new and employed in the past few years. The average length of working experience among the respondents within the Administration was 12.56 years (Min = 3, Max = 42). A majority of respondents had backgrounds in engineering or data science.

The inclusion criteria required respondents to hold significant roles within the Administration related to managing and implementing digital transformation projects. This included the following roles: project managers, IT specialists, business developers, digital strategists, and enterprise architects. To ensure they possessed the necessary insights, respondents were required to have at least two years of experience in their respective roles, specifically in projects related to digital transformation. Efforts were made to include a diverse range of respondents from different departments and business areas, ensuring a broad spectrum of perspectives and experiences related to digital transformation.

Semi-structured interviews were conducted with the selected participants. This interview format was chosen to provide flexibility and allow for the exploration of participants' perspectives and experiences while ensuring consistency across interviews (Bryman, 2016).

### 2.3. Participants

A total of 18 respondents participated in the study, comprising 5 female and 13 male participants, reflecting the gender distribution within the agency. The sample size was determined based on the principle of data saturation, which suggests that new information and insights tend to diminish after a certain number of interviews (Guest et al., 2006).

This approach allowed for open-ended discussions about participants' attitudes, perceptions, experiences, and strategies concerning ongoing digitisation projects. The interviews were conducted via Skype, telephone, or Teams from December 2021 to February 2022. All interviews were digitally recorded and lasted between 45 and 105 min.

The interviews followed an interview guide that included three themes based on the purpose of the study: the antecedents to change, the process of change, and the expected or perceived outcomes and results of the change. These broad themes were explored with open-ended questions such as "Tell me about how the change process took place". Such general questions were followed up by more specific ones to gather information about the participants' experiences and reflections. All interviews were transcribed verbatim (four of the interviews were transcribed by a professional typist, while the remaining fourteen interviews were transcribed by the authors). This resulted in approximately 200 pages of written text.

### 2.4. Data Analysis

Thematic content analysis (Braun & Clarke, 2006) was employed to identify recurring themes, patterns, and insights within the qualitative data. Transcripts were coded to extract key concepts related to actors' responses to change, adaptation strategies, challenges, and success factors. The analysis was conducted iteratively to ensure rigour and validity. The process began with multiple readings of the transcripts to develop a comprehensive understanding of the material (Miles et al., 2014). In the initial phase, all transcribed interviews were coded line by line (Miles et al., 2014). The codes were kept close to the respondents' wording in the transcripts. In the second step, the codes were compared to each other and grouped into broader segments, resulting in tentative categories (Yin, 2009). Finally, in the third step, the results were summarised under each category (Braun & Clarke, 2006).

To ensure that the analysis was grounded in the data, ongoing discussions were held between the two co-authors regarding the emerging issues related to the categories and results. Throughout the analysis, the researchers moved back and forth between the produced material and the transcribed interviews to ensure that the findings were grounded in data and not overly influenced by the researchers' preconceptions.



### 2.5. Trustworthiness

To enhance the rigour and trustworthiness of the analysis (Shenton, 2004), the researchers employed several strategies. Firstly, inter-coder reliability was established by having two independent researchers code a subset of the data and then comparing their coding to ensure consistency and agreement. Secondly, member checking was conducted by sharing the preliminary findings with a subset of participants to validate the accuracy and interpretation of their responses (Patton, 1999). The preliminary analysis, along with emerging results, was presented at an internal results workshop at the Swedish Transport Administration in June 2022. The workshop participants included both respondents from the study and invited managers from all types of businesses. Additionally, peer debriefing was undertaken by discussing the analysis process and findings with colleagues experienced in qualitative research.

### 2.6. Ethical Considerations

Ethical guidelines for research involving human participants were strictly followed. The study was conducted in accordance with the Declaration of Helsinki, and informed consent was obtained from all the participants involved. The confidentiality and anonymity of the respondents were preserved throughout the research process. Participants were provided with an informed consent form that outlined the purpose of the study, the voluntary nature of participation, and the confidentiality and anonymity of their responses. They were assured that their identities would be protected, and all data would be anonymised and reported in aggregate form to maintain confidentiality. Participants were also informed of their right to withdraw from the study at any time without any consequence.

## 3. Results

The aim of the study was to investigate how key actors experience overall project management.

### 3.1. Management Control

The analysis of interviews conducted at the Swedish Transport Administration reveals that respondents perceive governance within the Administration as insufficient and lacking the strength needed for successful digital transformation projects. Management control appears fragmented, unclear, and partially reliant on voluntary participation, allowing employees to selectively adhere to management directives. While a control structure built on trust and autonomy finds acceptance among respondents, they express a need for clearer priorities. Current management control is perceived as overly influenced by lower organisational levels, lacking overarching priorities and a comprehensive perspective. Respondents advocate for a more centralised and cohesive approach to governance throughout the organisation to ensure greater efficiency. One respondent summarised the situation as follows:

*‘At present, the organisation suffers from scattered and ambiguous direction and frameworks, compounded by unclear mandates. Large projects often operate as isolated “silos”, lacking adequate communication with other business areas, leading to inefficiencies and individuals being occupied with less value-added tasks’.*

Many respondents argue that adopting a more centralised management approach would improve information exchange between different business areas and mitigate the risk of suboptimal performance in various parts of the organisation. They also identified a challenge stemming from the absence of shared commitments and unified objectives, particularly for investments spanning multiple business domains. To address this, respon-

dents stressed the importance of clearer directives and guidance from top management to facilitate the execution of efficient, value-driven projects.

The interviews revealed a significant level of fragmentation within the Swedish Transport Administration. Respondents expressed concerns about duplication of efforts and resources, as similar projects are being undertaken across different areas of the organisation. One respondent explained:

*‘I firmly believe that in certain domains, we are duplicating efforts by running identical projects in multiple locations. We operate within silos, essentially pursuing the same project objectives and goals, albeit with slight variations in approach’.*

Respondents criticised the digitisation projects aimed at enhancing railroad traffic planning. These projects, which are now nearing their deadlines, were described as having been poorly managed over the years. Respondents noted that deadlines for one project had been repeatedly rescheduled, ultimately leading to a need to scale back ambitions due to resource constraints. A lack of coordination and communication among various business areas emerged as a significant concern, contributing to inefficiencies and a focus on less value-added activities. The organisation was characterised as lacking a unified language across different functional areas and having disparate IT solutions. This fragmentation impedes central control and coordination efforts within the organisation, making it difficult to operate efficiently.

### 3.2. Challenges and Opportunities

The interviews revealed significant deficiencies in leadership within the Swedish Transport Administration, particularly in key areas. Respondents noted a predominant emphasis on theoretical process development and regulatory frameworks, rather than on nurturing essential leadership competencies. Leadership was identified as crucial for inspiring individuals, fostering autonomy, navigating change, encouraging collaboration, and maintaining a forward-looking perspective. However, a notable lack of expertise in change management emerged as a recurring and prominent challenge. One respondent highlighted the issue with this example:

*‘There has been a noticeable gap in understanding change management, exemplified by the delayed implementation of a digital graph in train control centres. Despite the decision being made two decades ago, with the aim of having a new train management system operational by 2018, it remains pending. However, the implementation is inevitable, and it will be realised’.*

Historically, resistance to change within the Swedish Transport Administration was attributed to unclear managerial communication. Nonetheless, investments in leadership training have proven beneficial, particularly in traffic management, where all staff underwent training and tested new digital tools in secure trial settings. Managers received specialised training in addressing resistance to change, leading to enhanced implementation of digital tools. There was also a strong emphasis on bolstering employees’ comprehension of customer benefits and fostering a shared organisational vision.

The merger of the two authorities in 2010 continues to influence the organisation’s culture. Some respondents questioned the benefits of the merger, as the two cultures that were merged were very different. One respondent remarked: *‘Personally, I don’t think we gained much by merging [the authorities]’.* The merger resulted in extensive and complex operations, making it difficult to form an adequate management system.

The merger further compounded the organisation’s challenges by significantly expanding the scope and complexity of its operations. With the integration of multiple entities, systems, and processes, establishing a cohesive and efficient management system became

increasingly difficult. Moreover, reconciling the disparate corporate cultures and operational norms of the merging entities added another layer of complexity to the management task. One respondent noted:

*'We carry significant remnants from previously merged authorities. Altering established practices proves to be quite challenging'.*

While the organisation has learned from these experiences, there is still a need to change the culture and mindset within the Swedish Transport Administration. The current organisational culture has been characterised as lacking a long-term perspective, insufficiently considering societal benefits, and failing to keep costs down. The recruitment of new managers who are used to thinking about business and customer benefits is seen as a critical step towards addressing these issues. Changing the old culture of "silo thinking" and preference for stability is seen as essential. Moving forward, the organisation must increase its crisis awareness, improve cost prediction capabilities, and become faster and better at dealing with resistance to change.

Another cultural challenge within the organisation is the perceived lack of accountability, with little or no consequences for managers and employees failing to follow through on decisions. One respondent expressed: *'Absolutely nothing happens if you neglect to do what is decided'.*

This absence of accountability compounds the organisation's difficulties. Managers and employees often lack incentives to collaborate or share information across different departments, hindering effective communication and the exchange of knowledge. Additionally, the organisation's prevailing engineering and expert-focused culture, while highly valuable in technical domains, tends to neglect the development of crucial leadership skills. These leadership capabilities are necessary for guiding teams, fostering collaboration, and navigating the complexities of large organisational environments.

*'We must heighten crisis awareness within the Administration /.../. It's imperative to cultivate a more business-oriented mindset and prioritise customer benefits. /.../ We also need to enhance our agility in addressing resistance to change. Digitisation is reshaping work environments and challenging traditional power structures, requiring us to adapt. As a crucial societal actor, we have no option but to keep pace with the evolving landscape'.*

### 3.3. Alignment of Projects Within the Administration

A recurring issue within the Administration is the absence of a comprehensive perspective, which has been identified as a significant obstacle. Several respondents highlighted the Administration's organisational structure as a key factor impeding effective information sharing and the ability to gain a clear overview of ongoing project initiatives. The current structure is functionally divided and designed to focus on specific tasks within individual units. While this approach may enhance efficiency in handling specialised responsibilities, it creates silos that hinder collaboration and communication between business areas. Consequently, these areas often operate independently, prioritising their own objectives without adequately considering the broader organisational context. This lack of cohesion not only complicates cross-functional projects but also impacts the Administration's ability to respond effectively to the needs of customers and stakeholders. One respondent articulated: *'We struggle with feedback and collective learning. Our organisation and operating model function more like isolated silos'.*

Respondents expressed concern that these structural barriers hinder the organisation's adaptability and innovation. Achieving the alignment of efforts and projects, and fostering collaboration across units, is viewed as essential to leveraging the full potential of ongoing initiatives. One respondent stated: *'The challenge lies in managing the project as a*



*whole. The business areas have operated as independent units, which has impacted both customers and operations'.*

An example of misalignment within the organisation is how information is produced and processed within individual business areas, but often remains isolated. Other business areas may not utilise this information simply because they are unaware of its existence. This lack of visibility leads to unnecessary duplication of work and time-consuming efforts to locate information within the system. One respondent explained: *'If someone approaches and asks for information, you're willing to share, but they might not know what they should be asking for'.*

Respondents also highlighted significant gaps between processes within the organisation. Each business area operates independently, with management often satisfied as long as its specific area functions well. Follow-up and accountability are primarily centred on delivery responsibilities within individual operational areas, rather than across the organisation as a whole. This lack of overarching accountability limits the Administration's ability to align efforts with shared objectives. One respondent observed: *'The Administration is undergoing extensive digitisation, with numerous projects and initiatives in progress. One major challenge is the lack of coordination among these efforts, leading to inefficiencies and reduced cost-effectiveness'.*

#### 4. Discussion

The analysis of the collected data revealed several key findings related to management control within the Swedish Transport Administration. These findings shed light on the perspectives of the respondents regarding the management control approach, priorities, and investment commitments within the organisation.

Previous research on management control emphasises the importance of a clear and well-defined control structure to ensure that organisational goals are achieved efficiently and effectively (Merchant & van der Stede, 2017). The respondents' emphasis on a top-down approach implies a desire for stronger leadership and decision-making from higher levels of management, suggesting that they believe a more centralised control structure would improve coordination and alignment of efforts. Research on digitalisation in the public sector indicates that leadership plays an important role in handling the inherent complexity of digitalisation (Edelmann et al., 2023).

Furthermore, the respondents highlighted the need for a cohesive management control approach, indicating a perception of insufficient coordination and consistency in the current control mechanisms. This finding is consistent with the literature on management control systems. For instance, Simons (1995) emphasises the importance of integrating and aligning control mechanisms across different levels and functions within the organisation. A cohesive management control approach ensures that all units and individuals within the organisation work towards the same priorities and goals, reducing conflicts and enhancing overall organisational performance.

The respondents also emphasised the importance of clearer priorities, suggesting that they perceive a lack of clarity in the current organisational goals and objectives. Locke and Latham (2002) highlight the importance of clear and specific goals in guiding both individual and organisational behaviour, with clear priorities providing employees a sense of direction and purpose. This enables them to focus their efforts on the most important tasks and activities. Without clear priorities, employees may become confused or prioritise tasks that are not aligned with the organisation's strategic objectives. This is consistent with contemporary research on digital transformation indicating the critical role of coordination of digitalisation efforts to amplify overall efficiency (Yang et al., 2024). Plekhanov

[et al. \(2023\)](#) refers to this as a tension between local initiatives and the comprehensive digitalisation strategy of an organisation.

Finally, the respondents called for joint commitments regarding investments, indicating a desire for more collaborative decision-making processes around resource allocation. This finding suggests that the respondents feel excluded from investment decisions, which may lead to feelings of disengagement or dissatisfaction. The importance of involving employees in decision-making processes, particularly those related to resource allocation, has been highlighted in the literature on organisational behaviour and management ([Robbins & Judge, 2024](#)). Joint commitments to investments not only enhance employee engagement and satisfaction but also leverage the collective intelligence and expertise of the workforce, leading to better decision-making outcomes.

A challenge highlighted by respondents in this study is a deficiency in general leadership skills, particularly in change management, within the agency. Leadership effectiveness is strongly influenced by organisational culture, a concept defined by [Schein \(2010\)](#) as the shared values, beliefs, and norms that shape behaviour within an organisation. Previous studies have demonstrated that a positive organisational culture, characterised by trust, collaboration, and open communication, fosters effective leadership and improves overall organisational performance ([Cameron & Quinn, 2011](#)). Conversely, a dysfunctional culture can undermine leadership effectiveness, leading to resistance, conflict, and reduced performance ([Kotter & Heskett, 1992](#)). Leaders and managers also play an important role in communicating and creating meaning around digitalisation efforts ([Nielsen et al., 2024](#)). In addition, leadership and organisational culture are important drivers of digital transformation in the future within organisations ([Omol, 2024](#)).

This dynamic is particularly relevant in the context of digitalisation, where traditional work roles and power structures may be disrupted. For instance, the power of local managers may shift when a more centralised digitalisation strategy is adopted ([Plekhanov et al., 2023](#)). Transitioning from established practices, often rooted in years of experience, to new approaches that rely on digital tools can create stress and resistance among employees. Such resistance is not uncommon; studies show that technological and process changes often challenge employees' sense of competence and stability, leading to anxiety or opposition ([Rafferty & Griffin, 2006](#)).

Additionally, the introduction of new management strategies and digital workflows can significantly impact employees' work identities. Work identity, shaped by one's role and sense of contribution, is often tied to established routines and expertise. When these routines are altered, employees may feel a loss of identity or relevance within the organisation. This shift underscores the importance of leadership in guiding employees through transitions, addressing their concerns, and fostering an environment where new tools and strategies are embraced ([Alvesson & Willmott, 2002](#)).

In the Administration, many employees have long-standing tenures, with their professional identity rooted in engineering expertise and specialisation within specific areas. However, new demands on the Administration have necessitated shifts in work practices and behaviours. These include a stronger emphasis on cross-functional collaboration, the adoption of digital tools, a more holistic approach to operations, and a focus on delivering value to customers. While these changes require significant shifts in work identity for parts of the organisation, the message from leadership has been perceived as unclear. Employees express a need for more concrete direction and clarity, yet leadership's communication has not effectively conveyed the vision for change. Consequently, resistance to change remains prevalent, with minimal consequences for those who do not adapt.

Addressing these concerns could contribute to improved organisational performance, employee engagement, and overall effectiveness. The Administration should consider

revisiting its control mechanisms, enhancing communication and transparency, and involving employees in decision-making processes to address the identified issues effectively. Furthermore, the need for renewal among employees is important, creating a coalition for change and new cultural assumptions. One interviewee contended: *‘There is a need for young people with another mindset, but also room for those fostered in stability and administration’*. The societal demands on the Administration present a true challenge for an organisational culture built on stability, silos, and expertise. To respond effectively to these demands, a combination of managerial skills, including strong communication about the new challenges, and changes in the workforce will be essential.

#### 4.1. Implications for Policymakers

The findings underscore several important implications for policy formulation. First, the call for a more top-down management control approach indicates the need for stronger leadership to enhance organisational coherence and alignment with strategic goals. Policymakers should prioritise the establishment of a clear control structure that facilitates effective coordination across all levels of the organisation. Second, the respondents’ desire for clearer priorities necessitates the development of specific, measurable goals to guide employee behaviour and focus organisational efforts (Locke & Latham, 2002). Policymakers should implement systems to communicate these priorities regularly, reducing confusion and ensuring alignment with strategic objectives. Finally, beyond addressing control issues, it is also important to address “soft skills” in leading and managing change. This need will become even more important as digitalisation presents new challenges. Effective leadership and talented change management can help mitigate resistance to change and facilitate smoother transitions. This would ensure that the organisation is better equipped to adapt and thrive.

#### 4.2. Limitations

Due to the specific focus on participants within the Swedish Transport Administration, the findings of this study may not be fully generalisable to other organisations or contexts. The organisational culture, structure, and dynamics unique to the Swedish Transport Administration could limit the broader applicability of the results. While the findings reflect broader trends in public administration, certain aspects of the culture and structure of the Administration may be seen as unique. However, it is important to note that many of the challenges identified in this study are also common across large, bureaucratic public sector organisations. Similar patterns may also be observed in other public sector organisations, particularly those operating in highly centralised and regulated contexts. This suggests that while the findings may not fully apply to all organisations, they do offer insights relevant to comparable organisations.

In addition, this study was conducted over a relatively short period, and this limited time frame may not capture the full spectrum of experiences and perspectives related to the ongoing digitisation projects within the Swedish Transport Administration. Longitudinal studies or extended data collection periods could provide a more comprehensive understanding of the ongoing digital transformation processes as they evolve over time. Finally, the study focused solely on the perspectives of key actors involved in the ongoing digital transformation projects, potentially overlooking the viewpoints of other stakeholders involved in these projects. Including a broader range of stakeholders in future research could offer a more nuanced understanding of the challenges associated with digitalisation efforts.

## 5. Conclusions

The findings of this study underscore key challenges within public sector administration regarding management control and the implementation of digitalisation efforts. Firstly, the preference for a more centralised and cohesive approach to management control underscores the need for more centralised structures and unified direction to prevent misalignment and inefficiencies in digital transformation. This centralisation can facilitate more effective decision-making processes and ensure that all levels of the organisation are aligned with overarching strategic goals. A more centralised management control structure will enhance alignment with strategic goals and promote overall effectiveness across all levels. This should also be paired with the involvement of everyone participating in digitalisation efforts to create a culture of collaboration, collective ownership, and shared responsibility.

Secondly, the study identified a perceived lack of expertise in change management. As public sector organisations increasingly confront the demands of digitalisation, investing in change management training will be crucial. Equipping managers and employees with the necessary skills to manage the implementation of digital changes will help mitigate resistance and enhance the success of transformation efforts. Therefore, public sector organisations need to create training programmes that cover both technical skills and important soft skills like leadership, communication, and change management.

Finally, the insufficient alignment between strategic and project-level objectives may pose a barrier to achieving consistency and coherence in digitalisation initiatives. Establishing clear communication channels and frameworks that bridge these levels will be essential to ensure that digitalisation efforts are effectively implemented and sustained over time. To achieve this, public sector organisations should hold regular review sessions to help strategic planners and project managers work together better, improving consistency in their digital transformation strategies.

**Author Contributions:** Both authors (F.M., E.N.B.) contributed equally to this study. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research was funded by the Swedish Transport Administration, grant number TRV2021/53576.

**Institutional Review Board Statement:** This study was conducted in accordance with the guidelines of the Declaration of Helsinki and approved with the written and oral consent of the participant respondents. Ethical review and approval were waived for this study due to its nature as a retrospective analysis of anonymised data, where no collection of sensitive personal information was involved. Additionally, the study posed minimal risk to participating individuals, aligning with institutional guidelines and regulations that exempt such research from formal ethical oversight.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** Data are contained within the article.

**Acknowledgments:** The authors wish to thank the respondents of the study for their participation.

**Conflicts of Interest:** The authors declare no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

## References

- Ahrens, T., & Chapman, C. S. (2007). Management accounting as practice. *Accounting, Organizations and Society*, 32(7–8), 5–31. [CrossRef]
- Alvesson, M., & Willmott, H. (2002). Producing the appropriate individual. Identity regulation as organizational control. *Journal of Management Studies*, 39(5), 619–644. [CrossRef]
- Annual Report. (2023). Trafikverkets årsredovisning [Annual report of the Swedish Transport Administration] TRV: 2024:021. Available online: <https://trafikverket.diva-portal.org/smash/get/diva2:1839787/FULLTEXT01.pdf> (accessed on 10 April 2024).

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101. [\[CrossRef\]](#)
- Bryman, A. (2016). *Social research methods* (6th ed.). Oxford University Press.
- Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework*. Wiley.
- Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, 28(2–3), 127–168. [\[CrossRef\]](#)
- Edelmann, N., Mergel, I., & Lampoltshammer, T. (2023). Competences that foster digital transformation of public administrations: An austrian case. *Administrative Sciences*, 13, 44. [\[CrossRef\]](#)
- Felicio, T., Samagaio, A., & Rodrigues, R. (2021). Adoption of management control systems and performance in public sector organizations. *Journal of Business Research*, 124, 593–602. [\[CrossRef\]](#)
- Ferreira, A., & Otley, D. (2009). The design and use of management control systems: An extended framework for analysis. *Management Accounting Research*, 20(4), 263–282. [\[CrossRef\]](#)
- Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2014). Embracing digital technology: A new strategic imperative. *MIT Sloan Management Review*, 55(2), 3–12.
- Gann, D. M., & Salter, A. J. (2000). Innovation in project-based, service-enhanced firms: The construction of complex products and systems. *Research Policy*, 29(7–8), 955–972. [\[CrossRef\]](#)
- Godenhjelm, S., Lundin, R. A., & Sjöblom, S. (2015). Projectification in the public sector—The case of the European Union. *International Journal of Managing Projects in Business*, 8(2), 324–348. [\[CrossRef\]](#)
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough?: An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. [\[CrossRef\]](#)
- Hood, C. (1991). A public management for all seasons? *Public Administration*, 69, 3–19. [\[CrossRef\]](#)
- Hrebiniak, L. G. (2006). Obstacles to effective strategy implementation. *Organizational Dynamics*, 35(1), 12–31. [\[CrossRef\]](#)
- Ismail, M. H., Khater, M., & Zaki, M. (2017). Digital business transformation and strategy: What do we know so far. *Cambridge Service Alliance*, 10(1), 1–35.
- Iveroth, E., & Hallencreutz, J. (2020). *Leadership and digital change. The digitalization paradox*. Routledge.
- Jensen, A., Thuesen, C., & Gerdal, J. (2016). The projectification of everything: Projects as a human condition. *Project Management Journal*, 47(3), 21–34. [\[CrossRef\]](#)
- Kaplan, R. S., & Norton, D. P. (2001). *Transforming the balanced scorecard from performance measurement to strategic management: Part 1*. Accounting Horizons.
- Kitsios, F., Kamariotou, M., & Mavromatis, A. (2023). Drivers and outcomes of digital transformation: The case of public sector services. *Information*, 14, 43. [\[CrossRef\]](#)
- Kotter, J. P., & Heskett, J. L. (1992). *Corporate culture and performance*. Free Press.
- Kotter, J. P. (1996). *Leading change*. Harvard Business School Press.
- Kotter, J. P. (2012). Accelerate! A new system that allows the traditional hierarchy to operate in concert with a companywide ‘strategy network’ holds the key to nimble change. *Harvard Business Review*, 44, 45–58.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705–717. [\[CrossRef\]](#) [\[PubMed\]](#)
- Malmi, T., & Brown, D. A. (2008). Management control systems as a package—Opportunities, challenges and research directions. *Management Accounting Research*, 19(4), 287–300. [\[CrossRef\]](#)
- Matt, C., Hess, T., & Benlian, A. (2015). Digital transformation strategies. *Business & Information Systems Engineering*, 57(5), 339–343.
- Merchant, K. A., & van der Stede, W. A. (2017). *Management control systems-performance measurement, evaluation and incentives*. Pearson Education Limited.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook and the coding manual for qualitative researchers*. SAGE.
- Nielsen, J. A., Elmholt, K. T., & Noesgaard, M. S. (2024). Leading digital transformation: A narrative perspective. *Public Administration Review*, 84, 589–603. [\[CrossRef\]](#)
- Omol, E. J. (2024). Organizational digital transformation: From evolution to future trends. *Digital Transformation and Society*, 3(3), 240–256. [\[CrossRef\]](#)
- Otley, D. (1999). Performance management: A framework for management control systems research. *Management Accounting Research*, 10, 363–382. [\[CrossRef\]](#)
- Palmer, D., & Kaplan, S. A. (2013). *Framework for strategic innovation. Blending strategy and creative exploration to discover future business opportunities*. InnovationPoint LLC.
- Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *HSR: Health Services Research*, 34(5), 1189–1208.
- Plekhanov, D., Franke, H., & Netland, T. H. (2023). Digital transformation: A review and research agenda. *European Management Journal*, 41, 821–844. [\[CrossRef\]](#)



- Rafferty, A. E., & Griffin, M. A. (2006). Perceptions of organizational change: A stress and coping perspective. *Journal of Applied Psychology*, 91(5), 1154–1162. [CrossRef] [PubMed]
- Robbins, S., & Judge, T. (2024). *Organizational behavior* (19th Global ed.). Pearson Education.
- Schein, E. H. (2010). *Organisational culture and leadership* (4th ed.). Jossey-Bass.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education and Information*, 22, 63–75. [CrossRef]
- Simons, R. (1995). *Levers of control: How managers use innovative control systems to drive strategic renewal*. Harvard Business School Press.
- SOU. (2019:43). *Tillitsbaserad styrning och ledning i staten*. [Trust-based governance and management in the state] (p. 43). Swedish Government Official Reports. Available online: <https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2019/10/sou-201943/> (accessed on 10 April 2024).
- Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative Research Journal*, 11(2), 63–75. [CrossRef]
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350. [CrossRef]
- Westerman, G., Bonnet, D., & McAfee, A. (2014). *Leading digital: Turning technology into business transformation*. Harvard Business Press.
- Yang, C., Gu, M., & Albitar, K. (2024). Government in the digital age: Exploring the impact of digital transformation on governmental efficiency. *Technological Forecasting and Social Change*, 208, 123722. [CrossRef]
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Applied social research methods series; SAGE Publications, Inc.
- Zhang, X., Xu, Y. Y., & Ma, L. (2023). Information technology investment and digital transformation: The roles of digital transformation strategy and top management. *Business Process Management Journal*, 29(2), 528–549. [CrossRef]

**Disclaimer/Publisher’s Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.