



Stakeholder Views of Process Automation as an Enabler of Prioritized Value Ideals in a Swedish Municipality

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Abstract: Municipalities in Sweden are recommended to pursue process automation to face upcoming societal challenges. This paper focuses on a case where these recommendations are operationalized. Views on process automation held by different stakeholders, in relation to value ideals they prioritize in their respective areas of work, are explored by combining stakeholder theory and a model of public value ideals. Our findings show that, different stakeholder groups prioritize different values and that their views on process automation as an enabler of these value ideals are either optimistic, undecided, or pessimistic, where the latter two can be considered obstacles. This paper contributes, with an empirical illustration of how process automation is operationalized, answering previous calls for more research on this topic. We also elaborate on the use of stakeholder theory and public value as an analytical lens, contributing to the growing body of research attempting to understand process automation.

Keywords: Automation, public sector, municipality, stakeholder theory, public value

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1. Introduction

Process automation has become a topic of attention within e-government research in recent years (Afriliana & Ramadhan, 2022; Juell-Skielse, Lindgren, et al., 2022). One country that has focused on process automation within the public sector, especially at the local government level, is Sweden. There are several reasons behind this, the most frequently stated one being that process automation is needed for local and regional levels of government, to cope with an ageing population and the economic challenges that entails (SALAR, 2018a). Process automation is here understood as the use of digital technology to automate processes, so that these are executed by software instead of humans, thus being, slightly more specific than the more general term "automation" (Parasuraman & Riley, 1997b). In the Swedish municipality sector, process automation is expected to bring efficiency gains that are required to keep the municipalities operational when faced with insufficient budgets for the increasing workload of the future (SALAR, 2018a). The advancement and availability of process automation technologies has also been crucial in enabling the possibility to pursue process automation. For Swedish municipalities, process automation of case handling processes and administrative processes is presented as a new era of digitalization, reflected in the many publications and inquiries published by The Swedish Association of Local Authorities and Regions (SALAR) and the Swedish Government Offices (Digitaliseringskommissionen, 2016; E-delegationen, 2014; SALAR, 2017b, 2017a, 2018b, 2018a, 2019, 2020; The Swedish Government Offices, 2018). SALAR coordinates, inspires, and guides local governments and regions in Sweden on multiple topics, e.g., digitalization. The technology mentioned in these reports and associated with the recent push of process automation is mainly Robotic Process Automation (RPA), but various forms of artificial intelligence (AI) are also also mentioned. The use of these types of technologies is sometimes referred to as Industry 4.0 (Ribeiro et al., 2021). A simple example of RPA would be how a "robot" (the software) copies data from one system and pastes it into another, using the same interface as human workers. Thus, this technology tends to be non-invasive, being compatible with interfaces as-is, meaning that human workers can be replaced with the robot without affecting other software.

Much of the current focus on process automation in a Swedish context stems from the success story of a municipality automating a case handling process using RPA, cutting down lead times and efforts required, as well as increasing the availability and service quality for the citizen involved (SALAR, 2017b). This success story has been highlighted and heavily promoted in policies by SALAR. Despite the encouragements by SALAR and the Swedish government to pursue process automation, neither SALAR, nor any other public authority, has offered a more detailed guidance on how to implement process automation, nor provided any detailed indications as to what processes can or should be automated. This has left the 290 municipalities in Sweden to find their own way, and many municipalities are struggling to do so. A report published in 2019 found that only 2.5 percent of Swedish municipalities had, at that time, implemented a process automation solution. However, the report also noted that several municipalities had plans to implement such a solution, meaning that by the end of the same year this figure was expected to rise to 4.5 percent (Svensson,

2019b). The report highlights that process automation requires much more effort than simply installing a new software, and that, the development is hindered by lack of knowledge and experience (Svensson, 2019b, 2019a), as well as by technological, organizational and legal obstacles typically seen in digital government initiatives (Goldkuhl et al., 2014). This is corroborated by other research on RPA in the public sector (Asatiani, 2022). A more recently published survey shows that 31 percent of Swedish municipalities are now using RPA, 50 percent of them planning to do so, and 18 percent having no plans to pursue RPA, based on a sample of 127 out of 290 municipalities (Juell-Skielse, Güner, et al., 2022). In relation to the report mentioned above by Svensson, this shows how rapidly RPA has spread. As the research and knowledge of how process automation affects local government organizations (and society at large) is, thus far, limited, this rapid spread shows the need for more research, to understand its implementation and effects.

As stated above, there is a gap between how process automation is presented in influential policy documents and how local government organizations proceed and succeed in implementing this type of technology to achieve automated processes. Implementing process automation in local government is not only challenging in practice; the very idea of process automation being the savior of the welfare system should also be considered with some caution. Previous research illustrate that process automation technologies may be associated with overly optimistic expectations (Toll et al., 2020; Toll & Söderström, 2020), and may be driven by techno-optimism (Hood & Dixon, 2015). This exaggerated view on technology can lead to unexpected or even unwanted consequences in practice (Margetts & Hood, 2012). For instance, process automation holds great potential to increase efficiency (Madakam et al., 2019; Willcocks & Lacity, 2015, 2016), but can, at the same time, bring unrealistic expectations of its promised business value. There are also concerns that the introduction of process automation may diminish the importance of professional roles and decrease the competence that these roles previously held (Svensson, 2019a). Considering the rapid spread of RPA in Sweden, mentioned above, this shows the need to understand this technology and its effects. As such, there are several reasons for process automation in the local government context deserving scholarly attention. There are some examples of e-government studies on the consequences of process automation in the public sector (e.g. Denk et al. (2019); Ranerup & Henriksen (2019, 2020); Wihlborg et al. (2016)), but much remains to be done in order to gain a better understanding of how process automation affects these organizations in particular and society at large, in general (Lindgren et al., 2019). Several scholars have made calls for more research with empirical examples of what process automation within the Swedish municipality context entails (Germundsson, 2022; Veale & Brass, 2019; Wihlborg et al., 2016). Against this background, we wish to contribute to this area of research. In this paper we do this by analysing how a process automation initiative in a Swedish municipality is operationalized and the views of different stakeholder groups that are involved in and affected by this initiative.

Typically, there is a large number of stakeholders involved in e-government initiatives (e.g., Axelsson et al. (2013)), and process automation in municipalities is no exception. Process automation involves a large number of stakeholders who contribute and interact in different ways, e.g., policy makers, promoters, managers, developers, and end users (Söderström et al., 2021; Svensson, 2019b; Toll, 2022). It is also likely that different stakeholders in local government perceive process automation differently, and that conflicting interests can impede the development and implementation.

How different stakeholders affect and are affected by e-government initiatives is central to our understanding of e-government (Axelsson et al., 2013; Rose et al., 2018), and is important to explore also when planning and implementing process automation. The academic community plays an important role in educating and extracting lessons from empirical cases on process automation (Willcocks & Lacity, 2015).

Against this background, the aim of this paper is: (1) to explore stakeholder (stakeholder groups) views on process automation in local government and (2) relate these views to prioritized value ideals linked to the different stakeholders' areas of work. To achieve this, we combine stakeholder theory (Freeman, 1984; Mitchell et al., 1997) and a model of public value (Rose et al., 2015) to identify and understand the perspectives of stakeholders involved in and affected by a process automation initiative that is operationalized in a Swedish municipality.

We use stakeholder theory to organize the different stakeholders depending on their areas of work. Furthermore, we ascribe stakeholder roles that convey their relation to the process automation initiative using the typology of stakeholder roles for e-government projects proposed by Heeks (2006). To understand the stakeholders' perspectives on process automation, we use Rose et al.'s (2015) model of public value ideals to analyse different stakeholders' value ideals in relation to process automation. The model by Rose et al., (2015) has been successfully used in similar studies to analyse how different stakeholders perceive the effects of new automation technologies being introduced in a Swedish municipality context (e.g., Ranerup & Henriksen, 2019). Based on this procedure, we contribute with an empirical illustration of the operationalization of process automation and the accompanied insights from this illustration. Additionally, we make a theoretical contribution with our approach of combining stakeholder theory and public value. Finally, this study provides findings that can be used for practitioners to better understand and reflect upon their own role(s) and perspective(s) in relation to process automation implementation.

The paper is organized as follows: first we present the analytical lens, then proceed to introduce the case and method. We then present our findings and describe the identified stakeholders, their roles, and their respective views on which value ideals they prioritize in their respective areas of work, as well as their views on process automation. This is followed by a discussion where we reflect upon implications that can be drawn from the findings. We end by concluding our findings and what contributions this paper makes, reflecting upon our analytical lens, our approach and its limitations, and provide suggestions for future research.

Analytical lens

In this section we present our analytical lens. This section begins with providing an expanded definition of the studied concept (process automation). We then present the two theoretical foundations on which we build the analytical lens (stakeholder theory and public value).

2.1. Process automation of administrative processes

Automation is here understood as “the execution by a machine agent (usually a computer) of a function that was previously carried out by a human” (Parasuraman & Riley, 1997a, p. 231). We are thereby interested in, the change in work procedures associated with exchanging a human agent with a machine agent. The focus on 'process' automation further specifies that we focus on automation of administrative processes, typically related to case work. Process automation, in this setting, thus refer to, public organizations' application of digital technologies to exchange human agents (case workers) with machine agents (software). Currently, the machine agent is typically referring to RPA or AI. Process automation can also include older, more traditional methods, such as systems integration and application programming interfaces (API). As such, process automation as a concept and possibility is nothing new per se, but the more recent hype surrounding RPA and AI, combined with success stories of process automation in local government, has resulted in never-before-seen explicit initiatives focused on automating administrative processes in the public sector. The scope of what is possible to automate has also widened (Wajcman, 2017), and AI now brings promises of being able to automate cognitive tasks, that have previously been impossible to automate due to their need for human discretion (Lipsky, 2010). Throughout this paper we use this general and inclusive definition of process automation that includes several technologies, as this mirrors our empirical material, where no finer distinctions are made as to what process automation entails.

2.2. Stakeholder groups and roles

In this paper we apply stakeholder theory to organize informants into stakeholder groups and label them with stakeholder roles. The core of stakeholder theory is the idea of identifying and managing stakeholders in various ways (Freeman, 1984); managing the organization's stakeholders is seen as a way to ensure effective and efficient management. Stakeholder theory supplies concrete tools for how to identify and manage important actors (e.g., Mitchell et al. (1997)). Stakeholder theory is highly useful for discussing and analysing the large variety of actors involved in e-government projects; visible in the successful transfers of stakeholder theory to the public sector and the e-government context (Scholl, 2004; Flak and Rose, 2005; Flak et al. 2008; Axelsson et al., 2013; Rose et al., 2018).

As an entity, a stakeholder is here understood as “[...] any group or individual who can affect or is affected by the achievement of the organization's objectives” (Freeman, 1984, p. 46), and can refer to individuals, groups, organizations, or even the environment (Mitchell et al., 1997). Stakeholders can be identified and characterised in multiple ways (Lindgren, 2013). In this paper, we focus on groups of stakeholders and use the typology of stakeholder roles put forth by Heeks (2006) - see Table 1-, to identify different stakeholders that can affect, or are affected by, process automation in a municipality. Heeks' (2006) typology of stakeholder roles is useful, as it provides a list of roles that are typically encountered in e-government projects.

Table 1. Stakeholder roles in E-Government projects (Heeks, 2006).

Stakeholder role	Description
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Project manager/team	Those who will analyse, design, and build the e-government system.
Supplier(s)	Those who will supply the technology and other resources required by the e-government system.
Operators	Those who will be carrying out the activities/processes that make the e-government system work.
Clients	Primary clients are on the immediate receiving end of what the e-government system does or outputs. Sometimes these will be outside the government (e.g. citizens or businesses). Sometimes, though, these will be inside government (i.e. public servants): in this case, there may also be secondary clients who will be affected indirectly by the system since they are served by the primary clients (e.g. citizens served by those public servants).
Champions (s)	The person (or group) who drives the project on and seeks to justify its implementation.
Sponsors (s)	The person (or group) who pays for the expense and effort required to develop the new e-government system.
Owner	The manager of the organization or department that will own and use the system, who is ultimately responsible for the system.
Other stakeholders	Those whom have a significant influence on the project or on whom the project will have a significant influence, such as politicians and influencers.

2.3. Exploring prioritized public value ideals

We seek to explore stakeholder views on process automation and to relate these views to prioritized value ideals linked to the different stakeholders' areas of work. To do so, we use the concept of public value and a model consisting of four public value ideals. In the e-government context, values express "*underlying purposes and motivations that are more enduring and deeply rooted than project goals. Studying the values embedded in perceptions of IT projects is a way of understanding their superordinate goals, irrespective of what may be written in the project document for political ends. Coordinating stakeholders' basic values in the execution of a project may be an important route to success*" (Rose et al., 2015, p. 532). Values are subjective and represent something of importance worth striving after (ibid.). Public values, in turn, are understood as "[a] government's ability to deliver social and economic outcomes that correspond to citizens expectations" (Bonina & Cordella, 2009, p. 1). Public organizations are supposed to uphold public values (Almarabeh & AbuAli, 2010) and digital technologies have the power to transform such public values (Bannister & Connolly, 2014). Being a digital technology, process automation thus has, the power to transform public values.

There have been several contributions over the years to create inventories and models of public values to be used to study the transforming power of digital technologies, e.g. by Beck Jørgensen & Bozeman (2007) and Rutgers (2008). These inventories have been vast and difficult to apply for analysis. However, the paper by Rose et al. (2015) presents a theoretically grounded model of public value that synthesizes previous research. This model has been applied in a previous study on automation in a Swedish municipal context (Ranerup & Henriksen, 2019) where it showed explanatory power. The model organizes values into four value ideals. These four value ideals represent four

public value areas that public organizations are expected to uphold and deliver to citizens. In Table 2, these four value ideals are presented, along with their definitions and key representative values. In the next section we present how we combine stakeholder theory with this model and apply our analytical lens on our empirical data.

Table 2. Model of value ideals, adapted from Rose et al. (2015).

Value ideal	Definition and key values
Professionalism	“The professionalism ideal is focused on providing an independent, robust and consistent administration, governed by a rule system, based on law, resulting in the public record that is the basis of accountability. Key representative values are durability, equity, legality and accountability.” (pp. 539-540)
Service	“The service ideal involves maximising the utility of government to civil society by providing services directed towards the public good. Key representative values are public service, citizen orientation and service level and quality.” (p.540)
Efficiency	“The efficiency ideal concerns providing lean and efficient administration that minimises waste of public resources gathered from taxpayers. Key representative values are value for money, cost reduction, productivity and performance.” (p. 540)
Engagement	“This ideal focuses on engaging with civil society to facilitate policy development, in accordance with liberal democratic principles, thus, articulating the public good. Key representative values are democracy, deliberation and participation.” (p. 541)

3. Case introduction and method

Our paper is based on a qualitative and interpretative case study (VanWynsberghe & Khan, 2007; Walsham, 1995). This means that we have generated qualitative data through semi-structured interviews with employees affecting or being affected by process automation in a Swedish municipality. Being a case study, this paper provides an empirical example of process automation that contributes to detailed understanding of how process automation can be manifested in practice. Our findings, in turn, contribute to the larger body of research in this area. In conducting this research, we have followed the well-established principles for interpretive research and analysis by Klein & Myer (1999). We have also followed the ethical guidelines by both The Swedish Research Council (Vetenskapsrådet, 2002, 2017) and the European Code of Conduct for Research Integrity (All European Academies, 2017). The study presented in this paper is part of a larger research project that seeks to (1) map current implementations and use of RPA for automated case handling in local government, and (2) develop an analytical tool that can be used by researchers and practitioners to decide if, and to what degree, a specific case handling process can (and should) be automated (Lindgren, 2020).

3.1. Case introduction

The following case introduction is based on information from our data collection and the official website of the studied municipality. The anonymized case is centred on an initiative to implement process automation in case handling and administration in a Swedish municipality; hereafter referred to as the Municipality. The Municipality is one of the larger municipalities in Sweden with approximately 160 000 citizens. The Municipality is organized into seven departments, each focused on a certain subset of services, e.g., education and labor market, environment and city planning or elderly and childcare. There is also a city council department that includes internal support functions such as Human Resource Management (HRM) and an IT department. Each of these departments are, in turn, divided into divisions. In order to effectively strategise and coordinate its digitalization efforts, the Municipality has recently (2019-2021) formed a Digitalization Group under the City Council Committee.

At the time of data generation, the Digitalization Group consists of five roles: A Director of Digital Transformation, an Automation Leader, a Project Management Office Leader, an Innovation Leader, and an IT-governance and IT-architect Leader. Automation is one of the focus areas of the Digitalization Group, and this focus area is led by the Automation Leader. The Digitalization Group is a strategical function within the Municipality and does not have any mandate to decide what other parts of the organization should do. Instead, they are to lead the way concerning digitalization and to create strategies that can guide and support the other parts of the organization with their digitalization efforts.

For process automation, the Automation Leader has been working to develop and establish what the Digitalization Group refers to as the “automation capacity structure”. This is the name for a formal structure of information and processes that co-workers throughout the municipality can use in order to automate processes. In practice, this includes educational resources, guides, and forms that can be used by the co-workers. The following description of the automation capacity structure is based on interviews with members of the Digitalization Group.

Central to the automation capacity structure is the identification of automation ideas. Co-workers can identify an automation idea, i.e., a process that could potentially be automated. The educational resources part of the automation capacity structure can help co-workers to understand what types of processes can potentially be automated, thus, giving them a sense of what an automation idea could be. If a co-worker comes up with an automation idea, the idea can be submitted, guided by the information and forms that are part of the automation capacity structure. This idea would then be submitted to higher-ups who can make a judgement call whether or not to realize the automation idea. At the point of data collection for the study in this paper, how this judgement is made and by whom was still taking shape. If the automation idea is deemed suitable, this would generate a project to develop an automation solution from the automation idea. This project would be managed by the IT department during the development phase but would be a joint effort between the IT department and the division where the automation idea originates from; this to combine the competencies required.

What the automation solution consists of will vary, depending on what is to be automated. It could be a simple script or a more advanced robotic case handling solution (such as RPA). After an automation solution has been developed, the project is concluded, and the finished automation solution is governed jointly by the IT department and the division that is now using it. The IT department is responsible for the technical backend, taking care of the infrastructure and making sure that the automation solution is up and running. However, the main responsibility for the automation solution falls to the division that uses it, to make sure it works as it should when it operates. If the automation solution needs to be updated or altered, it is up to the division to contact the IT department and request changes. As the IT department and the remainder of the organization has an internal customer-supplier relationship, the development itself, the running of the automation solution and any changes that are needed would incur a cost that the division has to pay to the IT department.

An important aspect of the automation capacity structure is that it is designed to work bottom-up, i.e., it all starts with the automation ideas coming from individual co-workers. It is designed in this way against the background that the Digitalization Group does not have any mandate to decide what other parts of the municipality should do. However, this makes the design reliant on co-workers being willing and motivated to seek out process automation. In order to inspire co-workers and create such motivation, the Digitalization Group regularly organizes “inspiration lunches” within the municipality. These are one-hour lectures where co-workers from the municipality or invited guests present something related to digitalization. As part of the automation capacity structure, the Digitalization Group has also created a short “What is automation?”-course that co-workers can utilize at their leisure. For the automation capacity structure to function, the Digitalization Group relies on the course, the inspiration lunches, and word-of-mouth spreading of information about successful automation solutions to inspire and motivate co-workers to identify automation ideas on their own.

In this paper, the automation capacity structure is central to, and intertwined with, process automation, as this structure is how process automation is supposed to be realized within the Municipality. As such, when considering process automation in our analysis, we also need to consider the automation capacity structure.

3.2. Data collection method: interview study

Between February 2020 and January 2021, we conducted 21 semi-structured interviews with 18 different informants. The first of these interviews was conducted in person, and the subsequent interviews were conducted through video calls (Zoom and Microsoft Teams) due to the restrictions imposed by the COVID-19 pandemic. We used the Automation Leader as our point of departure, who recommended a first set of people to be interviewed, after which additional informants were identified through snowball sampling (Patton, 1980). The Automation Leader was interviewed on three occasions, and one other informant was interviewed on two occasions. The informants were predominantly business developers or managers working in six of the seven departments of the Municipality. Each interview had a duration of approximately 90 minutes and was recorded. The interviews were transcribed prior to analysis.

The interviews were semi-structured and focused on discussing the informant's role in general, as well as their view on process automation and the initiative to establish the automation capacity structure. This included questions about the informant, about their view on digitalization in general, their view on automation in particular, their opinions about the use of different technologies in their work, their views on how digitalization and automation initiatives are managed, and their thoughts on how digital transformation will affect their work situation. In this paper, we focus on questions from the interviews concerning the role of process automation in the informants' current and future work situations.

3.3. Applying the analytical lens and the creation of dominant views

In this paper, we combine stakeholder theory with the model of value ideals presented in the previous two sections. The analysis process can be broken down into the following parts, which are explained individually in the following subsections.

- 1) Identification of stakeholder groups and stakeholder roles
- 2) Identification of value ideals prioritized in the respective areas of work
- 3) Creation of dominant views to convey views on process automation
- 4) Respondent validation

3.3.1. Identification of stakeholder groups and stakeholder roles

We first identify stakeholder groups by organizing the informants into different stakeholder groups. As stated above, the aim of this paper is to relate views on process automation to the different areas of work of different stakeholders, the organizing of informants into stakeholder groups was made with this in mind. Thus, we defined stakeholder groups according to what their different areas of work entail, based on the interviews. This resulted in the stakeholder groups largely mirroring the already existing organizational structure of the Municipality, with its division of different functions. Four stakeholder groups were defined. When identifying the stakeholder roles of the stakeholder groups, this was done with regard to the automation capacity structure and the informants' self-professed roles in relation to the automation capacity structure (described in section 3.1).

3.3.2. Identification of value ideals prioritized in the respective areas of work

To identify what value ideals the informants prioritize in their area of work, we applied the model of value ideals by Rose et al. (2015). In doing so, value ideals that the informants prioritize emerged from answers to questions in the interviews about their role, their work content and what they see as important in their work. We also considered answers to questions about what further developments and improvements they would like to see in their immediate work context. For example, if an informant talked a lot about raising productivity and working towards cutting down lead times and saving on resources, we interpreted this as the Efficiency ideal (ibid.) being prominent in their area of work.

3.3.3. Creation of dominant views to convey views on process automation

In order to identify views on process automation by the different stakeholder groups, we first explored what value ideals they associate with process automation. This was in order to be able to see the contrast between value ideals associated with process automation and value ideals prioritized in their respective areas of work. This was done by applying the model of value ideals and interpreting answers to questions regarding how they perceive process automation, how they define it, what potentials they see in process automation and their thoughts on the Municipality's move to develop process automation for administrative work. To be able to convey their views on process automation, we created three dominant views inductively. These are:

- **Optimistic:** Views process automation as able to enable the value ideals prioritized in their area of work.
- **Undecided:** Is unsure, or hesitant, about whether or not process automation is able to enable the value ideals prioritized in their area of work.
- **Pessimistic:** Does not view process automation as able to enable the value ideals prioritized in their area of work.

These dominant views work as intermediaries between a) which value ideals are prioritized in a stakeholder group's area of work and b) which value ideals this stakeholder group considers process automation as able to enable. For example, if a stakeholder group prioritizes the efficiency ideal in its area of work and at the same time considers process automation as able to enable the efficiency ideal, the stakeholder group holds an Optimistic view of process automation. We have incorporated these three dominant views into our analytical lens and as part of our findings.

3.3.4. Respondent validation

During our data collection, all of the people we interviewed were aware of what type of research their contributions would be part of, and many of them were also very interested in partaking of the results. After having finished our analysis, we shared our findings with our main contacts in the Municipality, presenting it to the Automation Leader, the Director of Digital Transformation and a few of their colleagues. They showed interest in the findings and acknowledged the general pattern in our analysis. Apart from generating usable knowledge, in line with the project, this activity also serves as a respondent validation of the results. After this presentation, we sent them the first version of this paper (mentioned in the Acknowledgement section at the start of this paper, as well as in the next paragraph). We have since been informed that the findings from the paper have been spread within the municipality and actively used as an icebreaker to kickstart discussions between different stakeholder groups on their perspectives and areas of common ground.

3.3.5. Continuation from previous version of this paper

This paper is a continuation of a previous version of this paper presented at the 20th IFIP WG 8.5 International Conference of Electronic Government (EGOV) in Granada, Spain, in September 2021

(Toll et al., 2021). The paper received a best paper nomination at this conference, and we were therefore invited to submit this extended version to this journal. For this version of the paper, these are the main changes:

- The method has been expanded and is now more detailed.
- The stakeholder analysis now takes into consideration stakeholder roles.
- The findings and discussion now relate stakeholder roles more concretely to how stakeholders affect, and are affected by, the process automation initiative.
- The discussion has been extended and structured according to prevalent themes.

4. Findings

In Table 3 we present an overview of our findings. The first column shows, the stakeholder groups and the second, their stakeholder roles in relation to the automation capacity structure. The third column shows, which value ideals are prioritized in the stakeholder groups' respective areas of work. The fourth column shows, the stakeholder group's dominant view on process automation as an enabler of their prioritized value ideals.

Our analysis covers the value ideals that are prioritized and visible in the empirical data. These findings should not be interpreted as an indication that certain stakeholder groups do not care about the value ideals that are not presented as prioritized. Following Table 3 we describe each row of the table in turn, according to stakeholder group, and then summarize the findings section.

Table 3. An overview of our findings.

Stakeholder group	Stakeholder role(s)	Value ideals prioritized in their area of work	Dominant view of process automation as an enabler of prioritized value ideals
The Digitalization Group	Champions	Efficiency	Optimistic
IT Department	Suppliers Project managers Operators	Professionalism	Undecided
Support Functions	Clients Sponsors Operators	Professionalism Service	Optimistic
Operational staff	Clients Sponsors Operators	Engagement Professionalism Service	Pessimistic

4.1. The Digitalization Group

The Digitalization Group stakeholder group includes five informants explicitly working to further digitalization in the Municipality. As such, they hold the stakeholder role Champions, as they are actively trying to get the other parts of the Municipality onboard with digitalization in general,

where automation is one of the focus areas. They are also the designers of the automation capacity structure, which they are promoting within the organization. As The Digitalization Group has devoted resources to create and design the automation capacity structure, they could be considered to be Sponsors, however, they are not Sponsors in relation to actually using the automation capacity structure as they are not paying for actual automation solutions to be developed. Thus, in relation to how the automation capacity structure is designed to operate, they only hold the stakeholder role Champions. The following quote illustrates the aims of this stakeholder group: *“We have two general main objectives: one is to increase efficiency, or free up resources, by the aid of digitalization, and the other is to increase the digital maturity [in the organization].”* (Director of Digital Transformation). As can be seen from this quote, efficiency is mentioned as one of this group’s goals, where digitalization is key to achieving increased efficiency. Thus, as can be seen in Table 3, the efficiency value ideal is the most prioritized value ideal for this stakeholder group. This stakeholder group regards process automation as something especially suited for increasing efficiency, aligning with the value ideal they prioritize. As a result of this, their dominant view of process automation is Optimistic. However, this stakeholder group also note that other value ideals are important, but view the efficiency value ideal as key to pursuing other values, as efficiency means freeing up resources, that in turn can be used to achieve other value ideals. As such, process automation is viewed as a direct enabler of efficiency, and an indirect enabler of the remaining value ideals (professionalism, service, engagement).

It is important to note here, that this group is a strategical function within the Municipality, i.e., they are creating strategies not for themselves, but for other departments and divisions in the Municipality. This means that their prioritized value ideal (efficiency) is what they are attempting to design strategies for. However, the realization of this is reliant upon other parts of the Municipality. In short, for the Digitalization Group to succeed with its mission, other parts of the organization have to follow their strategies for the strategies to bear fruit. The following quote shows their stance of there being untapped automation potential through the organization: *“I am convinced that there is much we can automate, and increase efficiency for, in the organization”* (Automation Leader). It is this potential that they are creating strategies to realize, by the creation of the automation capacity structure (described in section 3.1). They are designing the automation capacity structure based on the notion of co-workers seeking out process automation voluntarily, with the automation capacity structure and its processes being readily available for them to utilize when doing so. They justify this approach by stating that the individual co-worker is the most qualified to assess what is suitable to automate within their area of work, as they are the foremost experts on their own processes. As such, the realization of their strategy (the automation capacity structure) to bring the value ideal they prioritize (efficiency), they rely on the motivation by co-workers in the organization wanting and seeking out process automation.

4.2. The IT department

The IT department stakeholder group includes four informants from the IT department of the Municipality, whose daily work involve supporting and servicing the Municipality in matters involving IT. In relation to the automation capacity structure, the IT department holds several stakeholder roles. They are Suppliers, as they supply the actual software that automation solutions are made

with. They are also Project managers, as they have the main responsibility during the development phase of an automation solution and manage such development projects. They are also Operators, as they are responsible for keeping the technical backend of finished automation solutions up and running.

The value ideal most prioritized for this group is professionalism, which is concerned with durability, robustness, legality, and security. Considering the role of the IT department as the governor of the infrastructure on which much of the daily operation of the Municipality is built, this prioritization is understandable. Against this background, they view process automation as possibly problematic, depending on which type of technology is used to automate. They are in favour of traditional methods of process automation, such as systems integration or API, but are undecided towards process automation technologies such as RPA and AI that are now becoming part of the arsenal of process automation technologies. While acknowledging that technologies such as RPA and AI have promising capabilities, they view them as volatile and unreliable, which is in direct conflict with the stability the professionalism ideal embodies. The following quote shows their view of RPA as a last-resort technology for process automation: *“There are some use cases where I don’t really see any other alternative, and in those cases, it is an exceptionally good solution. It is good that the alternative exists, but often there are, in my opinion, better solutions, and in those cases I think those should be used.”* (Data Architect). Additionally, the following quote expresses one of the informant’s overall thoughts of RPA, based on experiences from using it: *“I am doubtful. There are many complications, and it is very sensitive as well. Suddenly... well, if you change something in one end then you might have to go and make alterations and changes for both the robot and the process.”* (IT Project Manager). This quote shows how this stakeholder group views RPA as unstable, thus, conflicting with the stability of the professionalism value ideal. As such, they are not against process automation per se, but are in favour of certain technologies to achieve process automation more than others. They deem the newer technologies for process automation (e.g., RPA or AI) to be solely focused on efficiency, and that this efficiency comes at the possible expense of professionalism as they are lacking in stability. Because of this, their dominant view of process automation as an enabler of their prioritized value ideal is Undecided.

4.3. The Support Functions

The Support Functions stakeholder group includes four informants from departments that provide internal services to the Municipality; HRM and the City Contact Center. In relation to the automation capacity structure, these are Clients, Sponsors, and Operators. They are Clients because they are the ones who have processes that can be automated and are thus potential users of the automation capacity structure. They are Sponsors, as they have to pay for the development of automation solutions, as well as upkeep and any changes that are needed. They are also Operators, as they are responsible for making sure that the automation solutions are doing what they are supposed to in relation to the processes the solutions perform.

Similar to the IT Department, this stakeholder groups’ daily work consists of supporting other parts of the Municipality. In doing so, they prioritize providing services that are useful and of high quality, hence they prioritize the service value ideal. They are also concerned with professionalism as the robustness and legality of the services they provide are important. This stakeholder group is

Optimistic in its attitude towards process automation, as an enabler of the service and professionalism value ideals. The following quote shows their optimistic view, within the context of discussing digitalization and process automation in general: *“My objective is to ensure the resources needed to deliver welfare services, and digitalization is one of the strategies we use to be able to do that, as our personnel-resources will not be enough.”* (Director of HRM). This stakeholder group views process automation as both a direct and indirect enabler of these value ideals. As a direct enabler in that process automation does not suffer from human factor error, meaning that process automation can possibly lead to better and more correct service and record keeping, as well as faster service and increased availability. As an indirect enabler in that they acknowledge that the efficiency gains process automation potentially provides, would free up resources that can be reallocated to further pursue the professionalism and service value ideals in new ways, echoing the discourse of the Digitalization Group. The following quote shows how this stakeholder group views process automation as able to increase quality assurance: *“For us the purpose is, well part of it is, to make it easier for our co-workers. We want the increased quality that comes with a well-executed process, which is in large part performed manually today...-...and automating [the process] so that it is performed the same every time becomes something that is quality-assuring.”* (HRM Project Manager). Because they view process automation as aligning with and enabling, the value ideals they prioritize in their area of work, they have an Optimistic dominant view of process automation.

4.4. The Operational Staff

The Operational Staff stakeholder group includes six informants from departments within the Municipality that for the most part are concerned with providing services to citizens. The informants span several different committees; the Social and Welfare committee, the Environment and City Planning committee, the Education and Labor Market committee and Operational Services. This stakeholder group therefore, represents the main bulk of the Municipality, as well as being the group that most frequently interacts with citizens. This stakeholder group shares the same stakeholder roles as the Support Functions stakeholder group for the same reasons.

This stakeholder group prioritizes three value ideals: service, professionalism, and engagement. The reasons for prioritizing the service and professionalism value ideals are much the same as for the Support Functions group, i.e., providing useful and high-quality services and in doing so, ensuring the robustness and legality of the Municipality. This group is particularly concerned with professionalism in regard to record keeping and accountability, as many interactions with citizens can involve legal appeals. This incentivizes the individual co-workers to keep extensive records for the sake of transparency and traceability, in the event of such appeals. This group also prioritizes the engagement value ideal, as interacting with citizens is a large part of their area of work. They view the possibility to interact with citizens as important, in order to be able to offer quality services and take into consideration individual cases and circumstances; something they view as especially important in areas of work that involves interacting with vulnerable groups in society.

Concerning process automation, this group considers process automation as something that is concerned with efficiency. As such, they view the implementation of process automation as something that is done to increase the efficiency of administrative processes. While their area of work

does include such processes, the efficiency of these processes is not something this group focuses on, prioritizing other things above efficiency. In addition, they view digitalization in general as something that conflicts with the value ideals they are striving for in their every-day work. The following quote illustrates this group's stance, from the context of talking about the push within the Municipality to further digitalization and process automation: *"I almost feel that we focus too much on achieving digitalization, when I think about my [business developer] purpose, it concerns improving our work; work smarter, have better meetings and create more value for our citizens, and it should be easier for our co-workers to do so. So, I can sometimes feel that digitalization becomes an aim in itself."* (Business Analyst, the Environment and City Planning committee). As such, this group is critical towards digitalization in general and are Pessimistic in their view of the ability of process automation to enable the value ideals they prioritize.

4.5. Summary of findings

To summarize, the initiative covered above is the Municipality's operationalization of recommendations to pursue process automation (as described in the Introduction section). The analysis illustrates how one stakeholder group, the Digitalization Group, with a clear focus on efficiency is guiding the work to establish structures for promoting and realizing process automation in the organization. This work is founded on an Optimistic stance towards both process automation as an enabler of efficiency, and an optimistic view on the organization's ability to identify and realize automation ideas and bottom-up implementation. The Support Functions stakeholder group, although prioritizing different value ideals, also hold an Optimistic view on process automation, as an enabler of prioritized values. In contrast, the two stakeholder groups on which much of the realization of process automation relies, the IT Department and Operational Staff, hold Undecided and Pessimistic views on process automation as an enabler of the values ideals that they prioritize.

All but one of the stakeholder roles from the typology of e-government project stakeholder roles by Heeks (2006) have been applied to the four stakeholder groups. The stakeholder role that has not been applied to any stakeholder group is the Owner role. This is because of how the automation capacity structure is designed to consider several different technologies, depending on the process to be automated. As such, process automation within the Municipality is not concerned with a single software that has a single owner. Instead, ownership can be considered to operate on a per-automation-solution-basis. Thus, ownership can be considered to mirror the division of the Operators role, in that the IT department is responsible for the technical backend and infrastructure, and the divisions in the Municipality that have automation solutions in use are responsible for how they operate and what they do.

5. Discussion

The case explored in this paper is an example of how the encouragements of SALAR (described in the Introduction section) are put into action. This involves the creation of new structures, roles and responsibilities, and illustrates how process automation is a complex venture, as discussed by Svensson (2019b). In the studied case, the automation capacity structure, and the use of this structure by co-workers, is central to how process automation will be realized and thus achieved. As our analysis

has shown however, there are different views of process automation that become problematic when considering the roles of the different stakeholder groups, in relation to the automation capacity structure.

5.1. Different areas of work, different priorities, different views

That different stakeholder groups prioritize different value ideals in their different areas of work is to be expected, as different groups of people within a municipality work with different things that have different aims. What our analysis provides however, is insight into how these prioritizations differ and why. Our findings show that the value ideals that are prioritized are closely related to the objective of the people within the respective work area. The Digitalization Group is tasked with increasing efficiency, and thus, prioritize efficiency. The IT Department is concerned with upholding a stable infrastructure and IT environment, and thus, prioritize the professionalism ideal. The Support Functions and Operational Staff both provide services and hence prioritize Service and Professionalism. Additionally, the Operational Staff, who interact with citizens, also prioritize the Engagement value ideal. Considering these underlying reasons, it therefore, becomes understandable why these value ideals are prioritized.

Because of their differing prioritized value ideals in their respective areas of work, it is a logical consequence that their view of process automation differs as well. This because process automation is not considered to be able to enable all value ideals, and thus, it aligns for some stakeholder groups more than others. As our findings show however, which value ideals process automation is considered as able to enable, differs between stakeholder groups. All the stakeholder groups are in consensus that that process automation is related to the efficiency value ideal and thus, is able to enable this value ideal. However, The Digitalization Group and Support Functions stands out in that they also consider process automation to be able to enable additional value ideals beyond this. The Digitalization Group considers process automation as an enabler of the remaining value ideals indirectly, as a consequence of the efficiency value ideal being enabled freeing up resources to do so. In contrast, the Support Functions consider the main value ideal, that process automation is an enabler of, to be the Professionalism and Service value ideal, which aligns with their prioritized value ideals, thus, holding an Optimistic dominant view of process automation. They also consider process automation as able to enable the efficiency ideal, and because of this, being able to indirectly enable the Professionalism and Service value ideals. As such, they share the same opinion as the Digitalization Group; that enabling the efficiency value ideal indirectly enables other value ideals, but which value ideal(s) process automation is viewed as able to directly enable is inverted. While previous research has indicated that the main aim of process automation is to increase efficiency (see e.g., Madakam et al. (2019); Ranerup & Henriksen (2019)) the suppliers of, e.g., RPA software, also claim that it has other uses, such as the reduction of human error (Toll & Söderström, 2020). This is also mirrored in the reports by SALAR, where efficiency is presented as the main purpose of process automation, but that it can also be used to achieve other goals (SALAR, 2018a, 2018b). Considering this, our findings show that different stakeholder groups within the Municipality internalize and echoe different aspects of the discourse surrounding process automation.

5.2. The reliance on motivation in a bottom-up design process

As described in sections 3.1 and 4.1, the operationalization of process automation in the studied case is reliant on the motivation by individual co-workers seeking out process automation by utilizing the automation capacity structure. In our findings, the dominant views of process automation can be considered to be an indicator of such motivation. Against this background, the dominant views of the IT Department (Undecided) and Operational Staff (Pessimistic) become clear obstacles for the automation capacity structure to function as intended.

The reason the Operational Staff hold the pessimistic dominant view is due to them not considering process automation as able to enable the value ideals they prioritize, as they prioritize the professionalism, service, and engagement value ideals and consider process automation as only able to enable the efficiency value ideal. Hence, they do not share the opinion of the Digitalization Group and Service Functions stakeholder groups, that process automation can indirectly enable these value ideals for. As mentioned previously, process automation can be used for other goals than solely increasing efficiency. There is also research that indicates that the scope of what is automatable has widened (Wajcman, 2017). Thus, process automation can be argued to be attractive even if efficiency is not prioritized. It is clear from our findings however, that the Operational Staff do not hold this perspective. There are several possible reasons for this. One being that, The Digitalization Group, in their spreading the word about process automation and the automation capacity structure, only focus on the efficiency ideal, as it is the value ideal they prioritize. Some research does indicate that a fixation on process automation as a money-saver might indeed be counterproductive to its implementation (Asatiani, 2022). Another reason is that, from the insight the Operational Staff have into process automation, they do not deem it either applicable or suitable for their processes. As shown in our findings, this group interacts with citizens and values the ability to consider individual circumstances when interacting with citizens, indicating that discretion (Lipsky, 2010) is of importance to this group. It is possible that, this stakeholder group does not consider technology capable of replacing how humans apply discretion, thus, viewing process automation as irrelevant. Here we see a clear opportunity for future research to generate a more in-depth understanding of the Operational Staff perspective. As this stakeholder group represents the main bulk of the municipality that perform the types of processes that process automation is aimed to automate, their disinterestedness in process automation constitutes an obstacle for the Municipality's ability to realize process automation. Considering the stakeholder roles this stakeholder group holds (Clients, Sponsors, Operators), it becomes evident that this group needs to be motivated in order to want, pay for, and partially operate automation solutions.

The IT Department stakeholder groups hold the dominant view; Undecided, which can be seen as a middle-point between Optimistic and Pessimistic. For process automation to be realized, the IT Department holds a vital role within the organization, as reflected by their stakeholder roles as Suppliers, Project managers and Operators. This means that, the IT Department holds a position of great influence in the chain of events, spanning from an automation idea being turned into an automation solution. As they have a clear preference for more traditional technologies in achieving process automation (hence their undecided view towards process automation as a whole), this might be en-

acted in practice by them using their influence to develop automation solutions with the technologies they prefer. Thus, if they allow their undecided view to affect what is automated and in what way, it may influence the effectiveness of automation solutions by enacting a self-fulfilling prophecy. This shows that defining clear roles and responsibilities as well as creating alignment between the IT function and the goals of process automation is important, as previously proposed by Willcocks & Lacity (2015).

In summary, the stakeholders in our empirical material hold different dominant views of process automation, as a consequence of the prioritized value ideals in their different areas of work and how these align with their perspective of what process automation is capable of. In the studied case, the operationalization of process automation is reliant on a bottom-up structure, and the lack of motivation for some of the stakeholder groups shows that there are challenges for this to be realized. This design is due to the Digitalization Group not having the mandate to dictate what the other parts of the Municipality should or should not do. This goes back to how local governments in Sweden are governed, with municipalities and the different parts of these municipalities having a high degree of autonomy. Our findings thus show, that the challenges of process automation are not technological in nature, corroborating previous research showing that *“the technology is the easy part”*, being the title of the report by Svensson (2019b) that looked at RPA adoption in Sweden. As such, our study shows the different and dominant views of process automation become an important aspect to consider and manage, similar to those organizational obstacles previously discussed by e.g. Goldkuhl et al. (2014).

6. Conclusions, contributions, limitations, and future research

The aim of this paper was to (1) to explore stakeholder views on process automation in local government and (2) relate these views to prioritized values linked to the different stakeholders' areas of work. We have achieved this aim by illustrating a contemporary case study as an example of how policy and recommendations of pursuing process automation are put into practice within a municipality. In this case we have identified that the operationalization of process automation entails the creation of new structures, roles, and responsibilities. The study also illustrates that different stakeholder groups within local government prioritize different values, depending on their area of work. This prioritization affects their views on process automation, and they hold different dominant views on process automation. Four stakeholder groups were identified with accompanied stakeholder roles, value ideal prioritizations, and dominant views:

- The Digitalization Group: champions who prioritize efficiency and are optimistic towards process automation.
- The IT Department: suppliers, project managers and operators who prioritize professionalism and are undecided towards process automation.
- The Support Functions: clients, sponsors and operators who prioritize professionalism and service and are optimistic towards process automation.
- The Operational Staff: clients, sponsors and operators who prioritize engagement, professionalism and service and are pessimistic towards process automation.

From our discussion of our findings, we conclude that there are understandable reasons for the different stakeholder groups to prioritize different value ideals and act accordingly. Regarding which value ideals that are viewed as possibly being enabled by process automation we can see that different stakeholder groups have picked up different aspects from the discourse surrounding process automation. Their dominant views on process automation are a result of how the perceived value ideals process automation is considered to enable, aligns with their prioritized value ideals. Finally, we conclude that the ability of the bottom-up design process in the studied case, to achieve automation solutions, may be hindered by the lack of motivation of certain stakeholder groups. This may lead to them being disinterested or allowing their biases (e.g., preferring alternative solutions) to affect how and in what way process automation is realized.

6.1. Contributions

Two main contributions are highlighted from our research: 1) providing an empirical illustration of how process automation is operationalized in a local government organization and 2) elaborating on and applying a theoretical lens based on a combination of stakeholder theory and value ideals. This was made possible by applying the model of value ideals (Rose et al., 2015), which we found useful in agreement with previous studies (Ranerup & Henriksen, 2019). The empirical illustration, together with, the theoretical lens applied in this paper can serve as inspiration for further research in the e-government domain, focusing on process automation and beyond. The empirical illustration this study provides answers previous calls for research in this area (Germundsson, 2022; Veale & Brass, 2019; Wihlborg et al., 2016).

The results also have practical implications. As mentioned in the method section, the analysis covered in this paper has been subject to respondent validation, and proved to be usable in the studied case organization. After this respondent validation, the analysis (in the previous version of this paper) was actively used in the Municipality as a way to discuss and find common ground, regarding process automation between different actors. As such, this study has already had some practical implications and value in the studied Municipality. Our findings are also relevant for other local government organizations, policy making organizations (like SALAR), and the national governance of process automation. In a decentralized governance model, like the Swedish one, we have identified that many municipalities are on separate, often non-coordinated, journeys to establish process automation. Here organizations like SALAR could play a larger, and more evident, role in providing more detailed guidance on how to approach such ventures, and still be sensitive towards local contexts and needs. As noted in the Introduction, not much detailed guidance has been given by SALAR or any other public authority on how to implement process automation. It is clear from the studied case that the encouragements by SALAR have been taken to heart, but that the introduction of process automation is not without its challenges. In light of this, there is a gap between the policy and practice of process automation where both scholars and public authorities can play a role in providing insight and guidance on how to approach this type of e-government initiative. This study makes a contribution to this gap by showcasing different stakeholder perspectives and how these perspectives pose certain challenges.

6.2. Limitations and future research

Doing a single case study makes a deep analysis possible. At the same time, this approach involves tradeoffs; we have only covered one of 290 municipalities in Sweden, and more studies on process automation in other municipalities are needed in order to contrast and compare the findings. International comparisons could also be beneficial in order to contextualize the case-based results, and to explore other governance models (e.g., more centralized models) and other levels of government beyond the local. Comparisons to private organizations could also be made to further shed light on similarities and differences between these types of organizations. The stakeholder analysis in this paper categorizes the informants into stakeholder groups and ascribed stakeholder roles. Stakeholder theory can however, be applied to make deeper, more detailed analyses in order to explore more fine-grained nuances and how this affects their views on process automation, as more conditions than areas of work are likely to play a role. In addition, a limitation of this study is that stakeholder theory has only been used to study stakeholders within the studied municipality, thus, not including stakeholders that exist and operate outside the organization. Future studies could therefore, expand the scope of stakeholder theory to include external actors. Studies that use more specific definitions of process automation, e.g., focused on specific technologies, could also be fruitful in exploring differences between different types of technologies. We also identify further research avenues exploring how the inductively generated views (optimistic, undecided, and pessimistic) can be mirrored in previous research on organizational change in general and e.g., change management in particular. We also acknowledge that these views are, in all likelihood, influenced by additional factors not described in this paper, as such it would be interesting for future studies to identify and relate other potential factors as well. Here we see a potential for larger survey-type studies to map and measure such influences.

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