



Radboud Universiteit Nijmegen

**Shared services in public administration: Are we losing control?
A qualitative study of the impact of shared services on
organizational structure and controllability in Rheden**

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Inhoudsopgave

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Summary

The following master thesis “*Shared services in public administration: Are we losing control? A qualitative study of the impact of shared services on organizational structure and controllability in Rheden.*” is a qualitative diagnostic research aimed to determine the effect of shared services on controllability in Rheden and link this to the changes in structure it has brought using de Sitters (1998) perspective on Modern Sociotechnical Theory. The study is structured as a diagnostic research following the reasoning of Verschuuren and Doorewaard (2007). An instrument was created based on the structural parameters of de Sitter (1998) and the work pressure instrument by Christis, Moesker and Kersjes (2013).

The results of the study show that implementing shared services has had its impact on controllability during the first year. Employees of the organization experienced new problems and saw their ability to deal with them diminish. The changes in structure can, to a certain extent, explain this decrease in controllability, but further research would be necessary to draw a more reliable conclusion.

1. Introduction

1.1 New public management and shared services

In the 1980's, public administration saw a new movement rise in developed countries: New Public Management (NPM). The term covers a large amount of trends during a longer period of time and is therefore difficult to define. There is almost no agreement among scholars on what exactly NPM entails (Hood, 1995). Gruening (2001) states that this movement was characterized by its focus on budget cuts, decentralization and performance management in governments and other public institutions. One could say it shifted the mindset of public management to be more resembling to the one in the private sector, also called 'managerialism'. This resulted in a bigger focus on performance instead of process (Rhodes, 2006).

Dunleavy, Margetts, Brastow and Tinkler (2006, p.470) and Hood (1995) among others distinguished three themes in this trend of managerialism: *Disaggregation*: splitting up large public-sector hierarchies the same way private sector hierarchies were split up. *Competition*: introducing a structure of purchasers and providers in order to create competition.

Incentivization: rewarding with pecuniary based, specific performance incentives. Although this categorization is not perfect and might not include all changes that fall under NPM (Dunleavy et al., 2006; Hood, 1995), it does give a frame to organize them in.

During the NPM movement, public institutions such as municipalities would use business models and practices that have proven to be successful in the private sector (Hood, 1995, Gruening, 2001). This included municipalities in the Netherlands. One of the business models that originated in the private sector but is now also used in the public sector in the Netherlands is 'shared services'.

Shared Services is an organizational model that puts supporting tasks of multiple businesses or departments together in a single, additional organization. Janssen and Joha (2006, p.102) define shared service centers as follows: "A collaborative strategy in which a subset of existing business functions are concentrated into a new, semi-autonomous business unit that has a management structure designed to promote efficiency, value generation, cost savings, and improved service for the internal customers of the parent corporation". During the 1980's they were created and

developed mostly by larger companies to deliver supportive services at lower cost. (Walsh, McGregor-Lowndes & Newton, 2008; Van Laar, Achterbergh, Christis & Doorewaard, 2015). Before this development, most organizations were designed after the unit model which has its preparation tasks, producing tasks and supporting tasks all in the same unit. The advantages of unit models are that the coordination costs are low and the units are mostly independent of each other (Van Laar et al., 2015). Large companies wanted to increase the efficiency of their organizations and started to consolidate separate business units across organizational divisions into a single unit so that it could focus entirely on performing certain supporting tasks at the lowest cost possible (Walsh et al., 2008). The main aim of creating these shared service centers was, and still is, to cut costs through “*uniformization and standardization of supporting tasks and services and enlarging the scale of the execution of these processes in a shared service center.*” (Van Laar et al., 2015, p.77). Cutting costs, however, is not the only goal of shared services. Bergeron (2002, p.6) and Strikwerda (2010., p.7) both list other goals such as increasing efficiency, higher quality of service and improved economies of scale.

In the private sector, almost every international company works with shared services or shared services (Strikwerda, 2010). In the public sector, they are becoming more and more popular as well. (Janssen & Joha, 2006a; Borman & Janssen, 2013). Janssen and Joha (2006a, 2006b) state that shared services as a type of strategy seems especially suitable for public administrations, as right now most public administrations have and maintain their own systems and services. Cutting costs can seemingly easily be achieved by bundling the development, maintenance and use of the services.

The Netherlands was, as a developed country, influenced by the NPM movement (Hood, 1995). This has resulted in several new practices, among which are shared services. Shared services have been popular among municipalities for quite some years (Strikwerda, 2010). Unfortunately exact data are unknown about the number of shared service centers in the Netherlands, but there are numerous recent, well known examples such as the one in the municipality of Drechtsteden, often used as an example (M. de Bruijn, personal communication, May 19th, 2017) and ‘P-direkt’, a well-known HR-based shared service center which serves public institutions throughout the Netherlands.

The increase in usage of shared services seems to be part of the NPM movement as they introduce a business model that disaggregates municipalities. It makes the public sector more

focused on results as it aims to increase efficiency and decrease costs by introducing new structures that resemble the ones in the private sector.

NPM, with all its different aspects, did not always mean improvement. Some practices of the private sector turned out to be not as successful in the public sector and the movement itself has received criticism from various perspectives. (Dunleavy and Hood, 1994). Dunleavy et al. (2006, p. 471) show that of many of the practices that have emerged during this movement were unsuccessful, especially those that fall under ‘disaggregation’ and ‘competition’.

Shared services as a business model has not been without criticisms and problems either. One of the problems with shared service centers is that their perceived benefits are often unrealistic (Janssen & Joha, 2006a). It serves multiple customers with different needs and expectations, which makes balancing activities very difficult. Other well-known difficulties of shared services have to do with the fact that the accountability of the shared services are internal, whereas the accountabilities of the customers are external (Kennewell & Baker, 2016). This can create tension as there are often multiple customer organizations that all must answer to their clients while the shared service center has to answer to their customers as well as their own management.

1.2 ‘De Connectie’

The main tasks of municipalities such as Rheden vary from creating policies and registering its inhabitants to granting subsidies and handling health- and youthcare. Usually, municipalities consist of two major components: the city council and an executive board of the mayor and aldermen (Board of B&W hereafter). This is the case for the municipalities of Renkum, Rheden and Arnhem as well. The city council is elected by the citizens and they, on their turn appoint the aldermen and the mayor. The city council oversees a large part of the control aspect of the organization. They decide which direction the municipalities are headed; which strategies can be used and what goals should be aimed to achieve. Besides these tasks, they also keep the board of B&W in check. The board of B&W take care of the daily business. Each alderman as well as the mayor has their own portfolio of subjects they are responsible for. They are responsible for converting the strategic ideas and goals of the city council to actual plans. The creation of the shared service center is such a plan that was proposed by one of the aldermen in the municipality of Rheden. (M. de Bruijn, personal communication, May 11th, 2017). To do this, the board of B&W have the municipal organization to their disposal. This is an organization of professionals

that is aimed at helping the aldermen and mayor create the plans and policies that will achieve the goals. In charge of this organization is the municipal clerk.

Over the last few years several municipalities in Gelderland, the Netherlands have talked about bundling efforts and making their work more efficient. This resulted in the development of 'de Connectie'; a shared service center with three parent organizations: the municipalities of Arnhem, Renkum and Rheden. On July 1st in 2017, 'de Connectie' became officially operational. This will be the end of the startup period that started in 2015 when the first concrete plans were written down. In 2016 the definitive proposal was finished and in March 2017 the first department started working under 'de Connectie'. The official starting date of 'de Connectie' is July 1st 2017, but this turned out to be too early and the date was set back for three months to October 1st. This trajectory is an initiative of municipalities Arnhem, Renkum and Rheden that aims to take over a substantial part of the tasks that were previously performed by the municipalities themselves. These are mainly supportive tasks performed by the organizations, such as personnel and IT. These tasks will be the main activities of 'de Connectie'. The main reasons for the introduction of this cooperation is summarized in the definitive proposal (De Connectie, 2017) by four keywords: The first is vulnerability; it decreases the vulnerability of the municipalities as in the old situation, small municipalities would have tasks that could only be carried out by one or two employees which leaves them vulnerable in case of sickness. Second is quality; it is expected to go up as they will have increased expertise with the combined knowledge of multiple municipalities. Third are costs; performing these tasks will decrease the costs by at least four percent through an increase in efficiency. Fourth and last are opportunities; this cooperation should offer new chances to employees by creating an internal job market. Whenever new job openings appear within the three municipalities and the shared service center, employees will have the chance to apply for these jobs before the organizations will search externally.

In legal terms, 'De Connectie' will be a so called 'service organization' with one single board. This entails that 'de Connectie' is an intermunicipal organization aimed at performing supporting tasks for the municipalities involved (Tevette, 2015). The owners will be the municipalities of Rheden, Renkum and Arnhem themselves. Besides being owners, they will also be the ordering parties and clients. 'De Connectie' can, based on the definition mentioned in paragraph 1.1, be defined as a shared service center. The organization will have a 'flat' layout and consists of two management layers (De Connectie, 2015, p. 5). It has separate departments for each task to be

performed, and each department has their own specialized manager. 'De Connectie' starts with a structure in which professionals form a team and work together on delivering services and products for the customer organizations (De Connectie, 2015). Those teams are part of a department. A staff team is added to 'de Connectie' in order to assist the departments as well as the CEO. They oversee the contracts between the clients and the departments. To balance the demand of the municipalities and the supply of 'de Connectie', demand managers and supply managers are introduced. Demand managers will have the task of assessing what is needed in the municipality and communicating this with the supply managers, who in turn will establish to what extent the demand can be satisfied.

The first departments that 'de Connectie' took over were the IT departments which happened in March of 2017. After this first step, the departments tender (Inkoop en aanbesteding in Dutch, [I&A]), facilitating tasks and front office, documented information services (Documentaire Informatie Voorziening in Dutch, [DIV]), taxes, registrations and the secretariat will follow the footsteps of the IT department and join on July 1st, 2017. All of these are departments performing supporting tasks. This new structure means that the departments in 'de Connectie' now have to answer to three different municipalities, whereas before the departments would only answer to their own municipality.

During the startup phase of the shared service center a product catalog (PDC) was created to show what 'de Connectie' had to offer so the municipalities could decide what tasks to outsource and what to keep under its own command. Based on these demands and offers, contracts were created concerning the tasks the shared service center would perform and for which prices. A short overview of these contracts is presented in the proposal (De Connectie, 2017, p. 6). 'De Connectie' will perform certain specified and unspecified tasks for at least a year for each individual municipality as well as the three combined. There are also some third parties that work with 'de Connectie', (De Connectie, 2017) but these are not the object of this study and will not be considered.

1.3 Problem definition

'De Connectie' is, as of July 1st, 2017, officially active as service center. The first employees had already moved to Arnhem in March however, the home of 'de Connectie', where they work in the IT department. During this start of the undertaking, a few difficulties have been encountered.

The municipality of Rheden seemed to have the most problems. Among them was the problem that employees of the municipalities demanded insight and influence on the processes that were removed from their supervision to 'de Connectie'. The employees of the municipalities justified their intentions to interfere with the tasks and processes of 'de Connectie' with the argument that they were stakeholders. In some cases they demanded a say in the decision-making of the development of 'de Connectie' which interfered with the activities in 'de Connectie' and slowed down progress. This happened across all layers of the hierarchy, from the municipal secretary to administrative employees. To explain why they think they should have a say in such things, they said: "*We pay for your organization, so we have to be included in the decision-making.*" (M. Thomas, personal communication, April 11th, 2017). In an interview with one of the developers of 'de Connectie' another perspective on the story was told. The developer argued that while it might be difficult to have so much dependent stakeholders, it is their right to influence 'de Connectie' as they are the owners and clients. The employees feared that they would not be able to perform their job properly as they would rely on an external organization to support them instead of direct colleagues. This increase in dependency would decrease their ability to deal with problems and would create new ones. Another issue he mentioned was, in his terms, the 'increase of formalization'. Whereas previously employees of the staff functions could easily talk to each other in hallways or offices, the increased distance between them has made relations much more formal. He expected this formalization to grow even further when new communication systems were introduced.

The biggest and most prevalent problem mentioned by the developer was that during the startup phase of 'de Connectie' employees were afraid that their ability to solve problems deteriorated while new problems came into existence. In other words, the problems they faced would not be dealt with as efficiently as before or maybe not even at all while new problems arise. This problem seems to correspond to the issues the director of 'de Connectie' mentioned where employees of the parent companies would meddle with the design of the shared service center. When employees lose this ability to deal with problems they face, the so called 'controllability' decreases. Controllability is a term de Sitter (1998) uses for the balance between the problems faced in organizations, or 'working pressure', and the potential to deal with these problems. The work of de Sitter (1998) shows that controllability is a consequence of organizational structure. The newly implemented shared service center has impacted the organizational structure of de

municipality of Rheden as it has taken out and split up certain tasks in the organization and put them in another separate business unit. This structural change might therefore be the cause of the decreased controllability in the organization. Following the reasoning of de Sitter, controllability will influence organizational performance.

1.4 Goal and Research Question

Based on the above, the following research goal and objective can be formulated: To determine how the implementation of shared services influenced the controllability and if this can be explained by the change in the organizational structure of the municipality of Rheden, in order to advise the developers of ‘de Connectie’ and the municipality of Rheden on how the controllability can be improved. The corresponding research question will be: “*What implications does the creation of ‘de Connectie’ have for the controllability in the municipality of Rheden and can this be explained by a change in the organizational structure?*” One sub-question that will help to answer this research questions is formulated below:

- *How can organizational structure impact controllability?*

1.5 Boundaries

Setting boundaries for this study is a particularly difficult task as the boundary of the municipality of Rheden has changed with the implementation of ‘de Connectie’. Tasks that are vital are now placed outside of the municipality. These tasks have merged those from other municipalities into new departments. This means that there is no clear distinction between what belongs to Rheden or to the other municipalities. Besides the part of the shared services that will work in a new building, there are several tasks that fall under ‘de Connectie’ that will be performed in the same place they used to be performed, such as management assistance and maintenance. Between ‘de Connectie’ and Rheden so called ‘demand managers’ have been placed. These managers are ‘liaison devices’ that link Rheden to ‘de Connectie’. They ensure that the needs of the municipality are balanced with the services ‘de Connectie’ can provide. These managers are much like a bridge between units and are an interesting aspect of the new organizational structure to consider. This seems to be the clearest boundary that can be placed.

Everything beyond these managers is part of the shared service center and will not be part of this study.

1.6 Method

To answer the main question, this thesis will be a qualitative diagnostic research. The design of this research will be based on the work of Verschuren and Doorewaard (2007) and Achterbergh, Vriens and Doorewaard (2010). They created a framework for diagnostic research by formulating ten steps. The first five steps are the so called ‘bottleneck analysis’: Step 1 aims to determine goal of the diagnosis, whereas step 2 consists of determining the ‘diagnostic variables’ (V). Step 3, 4 and 5 are linked together as they assess the diagnostic gap. These steps consist of determining norm values $V(n)$ and actual values $V(f)$ and observing the difference $V(e)$ between them, the so called ‘gap’. This results in the formula $V(e) = V(n) - V(f)$.

Step 6 to 9 is known as the ‘cause analysis’. Step 6 aims to determine which factors might be influencing the diagnostic variables, called ‘parameters’ (P). Steps 7, 8 and 9 resemble step 3, 4 and 5 as they essentially are the same steps, except now the parameter gap is being assessed. Once again, the norm values $P(n)$ and actual values $P(f)$ of the parameters are determined. Now, a possible gap can be observed between the norm values and actual values, called $P(e)$. This results in the formula $P(e) = P(n) - P(f)$. Verschuren and Doorewaard (2007) combined the formulas mentioned above and created their complete formula of practical diagnostic research:

$$P(e) = (P(n) - P(f)) \quad \rightarrow \quad V(e) = (V(n) - V(f))$$

In this study the step by step process will be altered to suit the process in a better way. There already is an idea of what the cause of the problem is as the theory of de Sitter (1998) shows that organizational structure can be a direct cause of the level of controllability in an organization. The diagnostic variable V and the parameters P causal to the diagnostic variable can thus already be described. This type of situation is referred to by Achterberg et al. (2009) as a ‘closed diagnosis’. Chapter two will go deeper on the variables (V) and (P) to explain what they are and how they can be linked by theory. Based on the theory the norms for both the diagnostic variable and parameters will be determined. When this is done, the diagnostic variable and parameters will be operationalized. These will be the foundation for the data gathering. When the data has

been gathered the actual values of both variables be assessed. Once both the norm values and the actual values are known, possible gaps between them will become visible. In the next step, Achterbergh et al. (2009) state that it should now be determined whether the gap between the norm and actual (P) influenced the gap between norm and actual (V). When all these steps are completed, recommendations for the organization will be formulated.

1.7 Relevance

The practical relevance of this paper is the most important. The results of the research will help both 'de Connectie' and the municipality see the new problems that have arisen with the implementation of shared services and where and why this happened. This can help increase the understanding of the impact of shared services in the form that the municipality has chosen. If possible, some solutions will be formulated based on the data and theory which can give the actors in the municipality a guide on how to improve the situation.

The theoretical relevance of this paper lies mostly in showing how the work of de Sitter (1998) can be used in the diagnostic research design of Verschuren and Doorewaard (2007) and Achterbergh, Vriens and Doorewaard (2010). De Sitter's (1998) theory on MST can be applied in the public context. This study will add the work of Christis, Moesker and Kersjes (2013) to this theory and use it outside of the healthcare context for which it was originally created.

1.8 Thesis Outline

Now that the structure of this thesis has become clear, an overview of the contents can be made. In chapter two a theoretical framework will be created in which the theories used in this research will be explained and justified. In chapter three the methodological choices made in the paper and the reasoning behind it will be explained. Based on the findings of the interviews and documents, an analysis will be performed in chapter four after which the conclusion and discussion will be stated in chapters five and six.

2. Theoretical Foundation

In this chapter, the theoretical foundation of this thesis will be created and explained.

2.1 Modern Sociotechnical Theory

The organizational structure of the three municipalities has changed because of the development of a shared service center. To diagnose exactly how, de Sitter's work on modern sociotechnical theory (MST) will be used. De Sitter's perspective on socio-technology originates in 1994. He then wrote his book 'Synergetisch produceren' which used cybernetics as foundation for designing structures has been very important for the modern socio-technical literature in the Netherlands and other countries.

2.1.1 Cybernetics

De Sitter's theory might be regarded as a "*respecification of Ashby's regulatory logic in the realm of distributing work*" (Achterbergh & Vriens, 2010, p.229). Ashby (1956) formulated the famous and fundamental 'law of requisite variety' which argued that to deal with variety, variety in regulatory potential is necessary. Regulatory actions can be divided in two groups: 'attenuation' and 'amplification'. When an organization uses attenuation to deal with variety, or 'disturbances', it tries to decrease the amount of disturbances it has to deal with, whereas 'amplification' increases the number of ways to deal with said disturbances. In order to realize this requisite variety, de Sitter "*spells out how to design distributions of work (1) attenuating disturbances and (2) amplifying regulatory potential to deal with disturbances*" (Achterbergh & Vriens, 2010, p. 228). De Sitter's key term for designing organizational structures is 'controllability'. The designer of an organization should not aim to increase capacity on single capabilities, but increase controllability, or the "*ability to achieve a range of objectives.*" (De Sitter, den Hertog and Dankbaar, 1997, p. 506).

2.1.2 Tasks

Organizations can be seen as "*a network of related tasks*" (Achterbergh & Vriens, 2010, p. 231). De Sitter (1998, p. 303) describes tasks as a "*specific grouping of (sub-) transformations*". A transformation has a 'begin state', a 'transformation process' and an 'end state'. The transformation process is key, as this is where the desired end state is realized (Achterbergh &

Vriens, 2010, p. 231). The transformation process has a regulatory and an operational aspect. The operational transformation is the actual realization of the task, and in the regulatory part the ‘control’, ‘design’ and ‘operational’ regulation of the task is taken care of. In control regulation, goals are set for the organization. In design regulation, the network of the tasks or the tasks themselves can be altered to maximize regulatory potential and minimize disturbances. Lastly, operational regulation involves regulatory actions that deal with disturbances without influencing goals or design.

To place these tasks into the organizational context, Achterbergh and Vriens (2010, p. 240) provide another, more specific definition of organizational structure based on de Sitter (1998): *“organizational structure can be defined as: the grouping and coupling of transformations into tasks and the resulting relations between these tasks relative to orders.”*

2.1.3 External requirements

To know whether an organizational structure is sufficiently able to deal with disturbances and thus to perform well, de Sitter formulated the ‘external functional requirements’ by which the performance of an organization can be measured. These requirements are quality of organization, work and working relations and each have their internal functional requirements that make these concepts measurable. These functional requirements are shown below.

Table 1: Functional requirements (Adapted from de Sitter, 1998, p. 42 and Achterbergh & Vriens, 2010, p. 242)

External requirements		Internal requirements
Quality of the organization	Order flexibility	Short production- cycle time
		Sufficient product variations
		Variable mix of products
	Control over order realization	Reliable production and production time
		Effective control of quality
	Potential for innovation	Strategic product development
Short innovation time		
Quality of work	Low levels of absenteeism	Controllable stressconditions
	Low levels of personnel turnover and qualitative demand in accordance with	Opportunities to <ol style="list-style-type: none"> 1. Be involved 2. Learn 3. develop

	socio-economic developments	
Quality of working relations	Effective communication	Shared responsibility
		Participation in communication

Quality of organization, work and working relations are considered the essential variables of an organization. The essential variables of an organization are, according to Ashby (1956, p. 197) the variables that “*have to be kept within assigned limits*”. This means that there is an assigned margin where the values of these variables must stay between in order for the organization to survive.

2.1.4 Disturbances, attenuation and amplification

The functional requirements mentioned above are affected by disturbances. Ashby defined a disturbance as “*that which displaces, that which moves a system from one state to another*” (Ashby, 1956, p.77). These disturbances can force the essential variables out of their assigned limits. According to de Sitter (1998) there are four different reasons why disturbances in a task can occur. They are cited by Achterbergh and Vriens (2010, p. 244) as

- the number of relations a task has with its environment
- the variability of these relations
- the nature of the change of the environment of the task
- the specificity of norms regarding the output or regarding the way the task should be carried out

Disturbances can be countered by two different actions: amplification and attenuation. According to Achterbergh and Vriens (2010, p. 243) the effect of attenuation in structures is twofold; it decreases both the probability of occurrence of disturbances as well as the proportion of affected tasks. Amplification in structures, on the other hand, is characterized by increasing the regulatory potential built into an organizational structure. There are four different types of regulation that can be built into a structure (Achterbergh & Vriens, 2010, p. 237; de Sitter, 1998, p. 102):

- internal routine regulation; regulatory actions that are purely operational and involves no changes other tasks

- external routine regulation; this involves other tasks in the network of tasks, but still does not change the task itself
- internal non-routine regulation; here the task itself or its infrastructure is changed, but no other task is involved
- external non-routine regulation; the last class of regulation involves other tasks in the networks and changes their infrastructure and/or goals.

2.1.5 Controllability

According to de Sitter (1998) organizational structure is comprised of a production structure and a control structure. In the production structure, the main tasks of the operation are performed, whereas in the control structure the regulatory aspects of the organization are placed. In order to maintain ‘controllability’ within the structure, de Sitter (1998, p. 207) and Achterbergh and Vriens (2010, p. 246) state that for the production structure and control structure:

$$\text{Controllability} = \frac{\text{Potential for regulation}}{\text{Required regulation}}$$

De Sitter mentions (as stated by Achterbergh & Vriens, 2010, p. 246) that this ratio expresses both ‘effectiveness’ and ‘efficiency’. An effective and efficient organization has enough potential to deal with the disturbances they face but not more than that. Exceeding the necessary amount of potential for regulation would be inefficient as part of the potential would remain unused.

This means for the designer of an organization that, in order to achieve a sufficient value of controllability, he or she should focus on increasing the upper side of the equation while decreasing the lower side, or amplification and attenuation respectively.

This description of controllability in organizations is still rather abstract. Christis, Moesjker and Kersjes (2013) tried to overcome this gap between theory and practice by creating an instrument for measuring quality of work called the work pressure instrument. It was originally created for the healthcare sector as part of an effort to bring MST closer to practice in the Netherlands. It relies heavily on the work of Christis (1998, 1999) who used MST as theoretical foundation on the subject of stress caused by work. He uses similar definitions for the concepts MST uses.

Christis et al. (2013) state that “*work pressure exists when employees are confronted with disturbances or regulatory problems while not having the organizational regulatory potential to*

deal with these disturbances". It can be compared to a low value of controllability in terms of MST. Disturbances are defined as "*incidents interfering with daily business*" (Christis et al, 2013, p. 3). These disturbances can be reduced but are not entirely removable. They also can be seen as challenging and enriching for the tasks (Christis et al., 2013). Problems only arise when these disturbances cannot be dealt with, which results in high work pressure. This inability to deal with problems can be traced back to two possibilities: either the employee lacks the personal abilities to deal with the problem, or alternatively, the employee does not have the organizational ability to deal with the problems. In the latter case the organization is structured so that disturbances cannot be solved individually or in teams. In organizational ability to deal with problems there is a distinction between internal and external (Christis et al., 2013). Internal ability is the capacity an employee has to deal with problems or disturbances by himself. External ability is the capacity an employee has to deal with the problems with the help of others. This can be either by working together or addressing the problem in periodical meetings.

2.1.6 Parameters of design

Now that the goal of designing organizations is clear, which is increasing controllability, de Sitter (1998) has developed seven design parameters which can be changed by the designer or manager of an organization in order to reach this goal. Each of these parameters describes a part of the structure of the organization. The seven parameters are listed and summarized by Achterbergh and Vriens (2010, p.248-252) and van Amelsvoort, Kuiper and Kramer (2010, p.194).

The first three parameters are those describing the production structure:

1. Level of functional concentration

The level of functional concentration refers to the grouping of operations with respect to orders and is the biggest source of failure in organizations. (De Sitter, 1998, p.98). When operations that perform similar orders are grouped, the functional concentration is maximal. This means that there are separate departments for each order where all activities for this order are placed. This parameter is often high in bureaucratic regimes such as municipalities. As can be seen in appendix A, each municipality has different departments that focus on their own activities.

2. Level of differentiation of operational transformations

This parameter describes the extent to which operational transformations are separated into three sub-transformations called ‘making’, ‘preparing’, and ‘supporting’. ‘Making’ activities are those that concern the “*actual, direct realization of the output of the transformation.*” When the value on this parameter is high, there is a clear distinction between these transformations in the organization. For municipalities, this means that there are for instance separate departments for juridical and technical tasks as well as customer service.

3. *Level of specialization of operational transformations*

A high value on the parameter ‘specialization of operational transformations’ means that tasks are split up in short ‘sub-tasks’. Achterbergh and Vriens (2010) give the example of doing the dishes. This task can be split up in ‘sorting out’, ‘cleaning’, ‘drying’ and ‘storing’. An example for municipalities would be a separation between the reviewing of licenses for building and the final judgement about granting it or rejecting it. Achterbergh and Vriens (2010, p. 250) note that this specialization “*may concern make, support as well as preparatory transformations.*”

The fourth parameter describes the separation between the control structure and the production structure. It can therefore be assigned to describe both structures. Achterbergh and Vriens (2010) decided to add this parameter to the production structure and this will from here on be the case in this study as well.

4. *Level of separation between operational and regulatory transformations*

Achterbergh and Vriens (2010) distinguish two aspects of this parameter. The first aspect concerns operational tasks in an organization. If they have no possibility to perform regulatory actions but are dependent on others to do this, this parameter has a high value. The second aspect is about the regulatory transformations. If they are “*grouped into tasks separated from its operational aspect as much as possible*” (Achterbergh & Vriens, 2010, p. 250) the parameter value is high. High value on this parameter results in a distinct separation between the control and production structure and two different networks of tasks.

The last three parameters are those describing the control structure:

5. *Level of differentiation of regulatory transformations into aspects*

This parameter accounts for the differentiation of regulatory transformations into three aspects: ‘design’, ‘strategic’ and ‘operational’. When this parameter is low, a person or department has the

authority to make his own strategic decisions, can redesign the structure and is able to perform regulatory actions. In municipalities this parameter value is almost always high. The B&W handles the operational tasks and regulation, whereas the city council handles the design and strategic side of things.

6. *Level of differentiation of regulatory transformations into parts*

Regulatory transformations can also be split up in parts. These parts being ‘monitoring’, ‘assessing’ and ‘acting’. Monitoring is tracking the performance of the organization, assessing is the comparison with desired performance and acting is intervening to close this gap. For this parameter to have a high value in a municipality, these different parts should be clearly visible as separate tasks.

7. *Level of specialization of regulatory transformations.*

The last method of splitting and separating regulatory transformations is by dividing the tasks over smaller sub-transformations. Achterbergh and Vriens (2010) give the example of operational regulation that is decomposed into product quality, efficiency, personnel etc. The higher this parameter value is, the more visible decomposition between these aspects of regulation.

These seven structural parameters have all have one and the same desired value: as low as possible (de Sitter, 1998, Achterbergh & Vriens, 2010). High parameter values mean a highly complex organizational structure and repetitive, unchallenging jobs. The consequences of high parameter values for quality of work and working relations, the essential variables for this study, are stated by Achterbergh and Vriens (2010) and de Sitter (1998).

- *Quality of the organization* is measured in flexibility, controllability and innovativeness, all of which suffer from high parameter values. Increased complexity means longer cycle times, lower product quality because of the lack of quality control and limited innovative potential because of a lack of connection with the customer.
- *Quality of work* suffers from high parameter values because work stress is increased, work involvement is decreased and it is problematic to sustain possibilities to learn and develop for employees.
- *Quality of working relations* is affected by high parameter values because members lack overview of the process and are usually less involved. The basic hypothesis of the Sitter’s theory is portrayed by Van Laar et al. (2015, p. 83). They state that the organizational structure and its design influences the balance of coördinational needs and possibilities,

which in turn affect organizational performance. Van Laar et al. (2015) portray the basic hypothesis of de Sitter's theory as shown in figure 1:

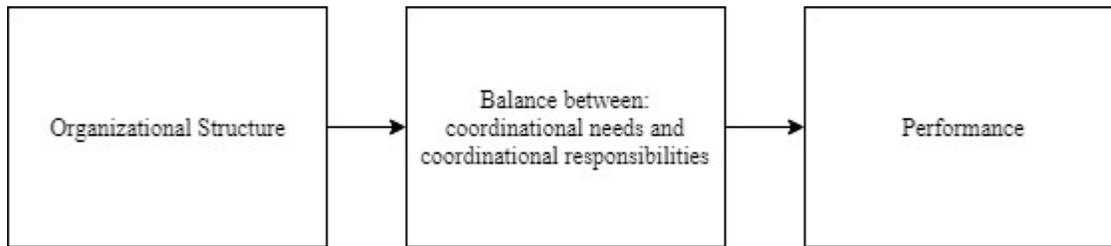


Figure 1: Basic hypothesis of de Sitter (1994) as in Van Laar et al. (2015, p. 83)

2.1.7 Economies of flow and scale

Using the theory of de Sitter (1998) as explained above, two different extremes can be distinguished, being economies of scale and flow (Van Laar et al., 2015, Achterbergh & Vriens, 2010 & de Sitter, 1998). Economies of scale are achieved when organizations increase parameter values to achieve an increase in financial performance. For example, shared service centers use the bundling of expertise to improve knowledge sharing and innovation, as well as increasing efficiency through standardization and increasing the scale of the processes (Van Laar et al., 2015). On the other side of the spectrum, economies of flow aim to decrease the parameter values to make the product 'flow' through the organization without using unnecessary amounts of buffers and inventory. According to de Sitter (1998) this will lead to better performance.

2.1.8 Designing an organization

Using the concepts explained above, certain rules can be developed for designers of organizations. First, controllability will be discussed. De Sitter, den Hertog and Dankbaar (1997, p. 506) refer to controllability as the "*ability to achieve a range of objectives.*". They claim that because of uncertainty about future conditions, a designer must increase the organization's capacity to control and not focus on a single goal or objective. This leads to the conclusion that the norm for a change in controllability is to increase.

De Sitter, den Hartog and Dankbaar (1997, p. 509) state that organizational designers should, following their basic principles of integral design, "*reduce disturbance probabilities by a reduction of impending variety and reduce disturbance sensitivity by an increase in control capacity.*". This quote is a description of the concepts of 'attenuation' and 'amplification' mentioned above. Attenuation and amplification can be achieved by decreasing the value of the

seven parameters as much as possible. This, in turn, will lead to achieving economies of flow instead of economies of scale. De Sitters (1998) original theory states that the values of the parameters should be ‘as low as possible’. This might be, from the perspective of a designer, unrealistic. Certain organizational changes can bring one parameter value to its lowest possible value while other values only decrease a little or nothing at all. In context of this study, this means that the norm for changing the parameters is to ‘decrease’, rather than being ‘as low as possible’.

2.2 Shared services

MST shows how structure can influence performance through the balance between coördinational potential and needs, or ‘controllability’. In chapter 1, shared services were described as “*A collaborative strategy in which a subset of existing business functions are concentrated into a new, semi-autonomous business unit that has a management structure designed to promote efficiency, value generation, cost savings, and improved service for the internal customers of the parent corporation*” (Janssen & Joha, 2006, p.102). Using shared services means that several tasks are taken out of their business units and put together in an entirely new business unit. Most of the times the tasks that are being transferred to the new business unit are support tasks like administration and IT. The goal of these changes is achieving the economies of scale mentioned in the previous paragraph. The concept of shared services can be related to organizational structure.

De Sitter (as stated in Achterbergh & Vriens, 2011, p. 244) argues that “*the probability of disturbances depends on four things: the number of relations of this task, the variability of these relations, the nature of environmental changes and the specificity of norms regarding the output and the way the task should be carried out*”. Using economies of scale leads to a higher number of relationships in an organization, a higher level of variability and increasingly specified norms. The environment of the organization is independent and shared services will most likely not impact this aspect. All in all, implementing shared services risks increasing the probability of disturbances and is thus likely to increase the lower side of the equation of controllability. Besides the impact on the probability of disturbances, it can be argued that the regulatory potential of the organization is affected as well. Achterbergh and Vriens (2011, pp. 254-265) describe the effect of using economies of scale (high parameter values) on the production

structure, control structure and controllability. To illustrate this effect, they first explain what an organization with high or maximal parameter values looks like. An organization that has high parameter values has a clear distinction between the production structure and the control structure. This means that there are two separate networks for the regulatory tasks and the operational tasks. Within the production structure, high parameter values lead to several different sub-tasks and a high number of relations between them. This increases working pressure and thus, if regulatory potential does not increase as well, decreases controllability. In the control structure, the same reasoning applies. Operational tasks will have very low internal routine regulatory capacity because there are two separated networks of operational tasks and regulatory tasks. The external regulatory capacity is also harmed because high parameter values in the production structure result in more separate tasks that will also need separate regulatory tasks. Coordination between them will become increasingly difficult when the number of relations goes up.

2.3 Conceptual model

Using shared services is, following the theory of de Sitter (1994) and the description of the concept shared services made in earlier chapters, likely to have an impact on controllability by increasing the values of the seven parameters. The aim of this study will be to find out whether controllability has indeed been affected and if this can be explained by the impact shared services have on organizational structure. Verschuren en Doorewaard (2007) created a formula of practical diagnostic research on which this study was based. It was explained in chapter 1 as in Achterbergh et al. (2009, p. 29): “ $P(e) = (P(n) - P(f)) \rightarrow V(e) = (V(n) - V(f))$ ”

In short, this means that a difference between the actual value and the norm value of the diagnostic variable is caused by a difference between the actual value and the norm value of certain parameters. For this study, the norm value and actual value of the diagnostic variable ‘change in controllability’ will be measured. If a gap between the two values is discovered, the potential cause will be investigated. A difference in the actual value of the change in controllability and the norm value is likely to be caused by a difference in the actual value organizational parameters and the norm value of ‘change in organizational structure’.

Using the design principles explained above it can be established that for controllability the norm is as high as possible and for the structural parameters the norm value is as low as possible. A

good designer should keep the controllability of an organization as high as possible. When designing an organization or altering an existing one, the designer should thus aim to increase the controllability. To achieve this, the value of the structural parameters should be lowered where possible. The implementation of shared services is likely to have decreased controllability by moving the parameter values away from their norm value.

Based on this, a model of the research can be made. Earlier, the model of van Laar et al. (2015) portrayed the hypothesis of de Sitter's research. This model can be adapted to fit this study and is shown in figure 2.

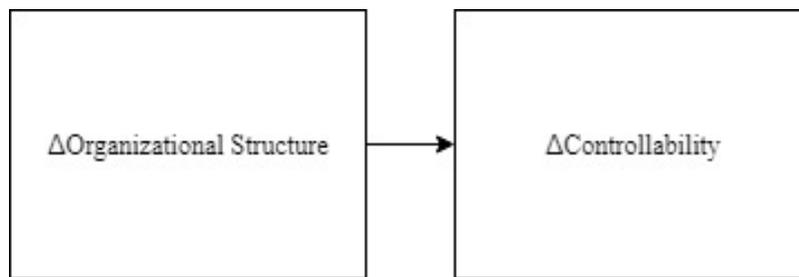


Figure 2: Conceptual model of this study

In this study, the focus is not on the entire relationship but merely on the one between structure and controllability. The reason performance is not being taken into account in this study has one important reason: implementing shared services has been done many times before, and often the first period after implementation the performance of the organization drops. (Personal communication, M. de Bruin, 2017, C. Hoogendam, 2017, M. Thomas, 2017). This is mostly because of employees and departments having to adapt to the new way of working. Performance tends to go up after this first period. A decrease in performance is therefore not per se due to structural changes but can be caused by difficulties encountered in the turbulent first period of the transition. Looking at performance in the first period of use is not very useful as it is almost impossible to determine what share is caused by structural changes. By looking at controllability using the work pressure instrument, this research might be able to pinpoint more accurately where in the organizations the problems originate which makes it easier to link to structure.

3. Methodology

In this chapter, the methodology used during the research will be discussed. First, the research type will be justified. Secondly, the research design will be explained. Thirdly, the data gathering of the study will be discussed, which includes interviews and documents. Fourthly, the operationalization is shown to

3.1 Research type

As stated in chapter one, the research question of this study is “*What implications does the creation of ‘de Connectie’ have for the controllability and can this be explained by a change in the organizational structure of the municipality of Rheden?*”. As is often the case in practical business research (Achterbergh, Vriens & Doorewaard, 2009), this research will have a diagnostic character which is reflected by the research question. In diagnostic research, no new theories will be tested, but existing theories will be used to tackle the problems (Christis, 2016). Diagnostic research is the second step of the intervention cycle. For this type of research to be relevant, the problem must be recognized and acknowledged by the organization involved. The goal is to determine the causes of this problem to guide the development of a solution (Verschuren & Doorewaard, 2007). Achterbergh, Vriens and Doorewaard developed the formula for practical diagnostic research which was mentioned in chapter one and will be used for this study. The first part of this formula concerns the diagnostic variable and is called the ‘bottleneck analysis’. It will focus on determining whether there is a problem by assessing the norm value and actual value of the diagnostic variable. Table 2 shows the diagnostic variable of this study and its norm value. The actual values will be determined through interviews.

Table 2: Diagnostic variable

Diagnostic Variable ‘D’	Norm value ‘D(n)’	Actual value ‘D(f)’
Δ Controllability	Increase	

The second part of the model by Achterbergh, Vriens & Doorewaard (2009) aims to identify the cause of the problem that is established in the first part by determining the influencing factors and assessing its norm values and actual values. In this study, the influencing factors can be appointed

a priori as the work of de Sitter (1998) and Achterbergh and Vriends (2010) shows that organizational structure is a causal factor of controllability. The logic of structure affecting controllability is explained in chapter two of this study. The norm values have already been stated in the theoretical chapter and are shown below in table 3, the actual values will be determined through interviews and document analysis.

Table 3: Parameters

Parameter (P)	Norm value 'P(n)'	Actual value 'P(f)'
ΔFunctional differentiation	Decrease	
ΔLevel of differentiation of operational transformations	Decrease	
ΔLevel of specialization of operational transformations	Decrease	
ΔLevel of separation between operational and regulatory transformations	Decrease	
ΔLevel of differentiation of regulatory transformations into aspects	Decrease	
ΔLevel of differentiation of regulatory transformations into parts	Decrease	
ΔLevel of specialization of regulatory transformations	Decrease	

3.2 Research Design

Research design is, according to Rowley (2002, p. 18) “*the logic that links the data to be collected and the conclusions to be drawn to the initial questions of a study; it ensures coherence.*”. A case study is typically linked with qualitative research (Vennix, 2011). Baxter and Jack (2008, p. 544) state that a case study is “*an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources.*”. The design of a case study is suitable for this research as it tries to investigate a phenomenon within the municipality of Rheden, using multiple sources of evidence like interviews and documents. Often, when using case studies, boundaries between the subject and the context are unclear, as is the case in Rheden. The boundary between the shared service center and the focal organization is

vague. Another important note is that case studies investigate a phenomenon carried by only one or a few units, and not across an entire population.

The function of a case study is not to generalize to a larger population, but more so to explore the phenomena more deeply and to explain them. This deeper exploration and explanation fits with the aim of the research described in the previous chapters.

The reasons for choosing the case of the municipality of Rheden were clear. Both Rheden and Renkum as an organization had more struggles with the start of 'de Connectie' than their bigger counterpart Arnhem, as Arnhem was leading in the design of de Connectie. After initial conversations the team leaders in the municipality of Rheden were very enthusiastic and willing to cooperate.

3.3 Data collection

The data needed for this thesis will be gathered through interviews and documents. Below will be given a description of how these processes have taken place.

3.3.1 Interviews

During the research, several interviews have been performed. At first, the conversations were mostly explorational, trying to determine what the problems were and who was involved. Later during the process, more structured interviews were performed to create an overview of the situation based on the chosen theories. The very first conversation took place on February 7th where the director of 'de Connectie' was interviewed. This conversation was not structured as the questions that were asked were determined by the subjects that emerged. It was therefore informal (Vennix, 2011). The second conversation that took place was on March 12th, with again the director of 'de Connectie' as the respondent. It was an informal phone-conversation in which the subjects of the first conversation were more deeply discussed. The third conversation took place on May 11th, where the problem formulation and research proposal were discussed with one of the designers of 'de Connectie'. This interview was executed as a guided interview where questions were prepared, but not in order.

The interviews that have been executed in the next phase of the study focused on gathering data to answer the research question posed in this research. Interviews in qualitative research are, according to Kvale (1983, p. 174), "*to gather descriptions of the life-world of the interviewee*

with respect to interpretation of the meaning of the described phenomena. This focus on the descriptions of the interviewee as well as respecting the interpretation leads to the form of a semi-structured interview. Semi-structured interviews are, according to Kvale (1983) a form of interviewing between a completely structured interview and an informal conversation. It is similar to Vennix' (2011) description of a 'guided interview'. It requires some preparation of themes or questions, but never restricts the interviewer from altering the order or wording of the questions. All of the interviews that are part of the dataset of this study have been semi-structured. This means that questions were prepared and are in order, but additional questions may be asked when deemed necessary by the researcher, and existing questions may be adapted to fit the situation. If necessary, the order of the questions can be altered as well. This freedom granted to the interviewer allows for deeper and more meaningful questioning that fits the aim of qualitative research. The second part of the interviews will have predetermined questions as well, but also predetermined answers. This type of interview is called 'closed fixed field response' (Vennix, 2011). By using the answering scheme of Christis (2013) the data will be immediately ready for use. Normally, the work pressure instrument is used to create an overview of these bottlenecks and present them to the organization. Based on this presentation, discussions and brainstorming sessions are performed to improve the situation. As this research is merely using the instrument as a tool to gather information about the controllability and does not aim to provide a solution solely based on the outcome of the work pressure instrument, performing such presentations and discussions is not necessary for this study. The operationalization of the questions can be found in paragraph 3.4 and the corresponding structured guides can be found in appendix B.

As there is not enough time to interview everyone in the organization, some decisions had to be made on who would be interviewed. The most useful interviews would be with the people that work in the teams that were impacted the most by the structural changes. Based on documents and conversations it seemed that the supportive domain is impacted the most. Teams were split up and had several tasks transferred to the shared service center. Between the domains 'social' and 'spatial', the spatial domain was impacted the most. The social domain has its own supportive team and is thus not as dependent on the supportive domain as the spatial domain. For this reason, only one team manager of the social domain was interviewed versus two of the spatial domain. Higher up in the organization it would be useful to see how the shared services

have impacted the daily task of the aldermen and the mayor. During the interviews, new interviewees were approached if their input would seem beneficial to the dataset. In the end eleven employees were interviewed. This includes one aldermen, two demand managers, and six team managers of which three worked in the supportive domain, two in the spatial domain and one in the social domain. The data gathered from the tenth and eleventh interviewees were left out of the research. One of them was a management assistant working for ‘de Connectie’ and thus fell outside of the boundary of the research, where the other was an interim team manager whose job no longer existed a few months after the official start of ‘de Connectie’.

Table 4: Interviews

Respondent	Name	Job Title	Interview date
1	M. de Bruijn	Team manager Customer Contact(‘Bedrijfsvoering Klantencontact Centrum’ in Dutch [BKC])	September 7 th , 2017
2	C. Hoogendijk	Team manager Organizational Advice (‘Bedrijfsvoering Advies en Organisatie in Dutch’ [BAO])	August 8 th , 2017
3	P. Woertman	Team manager Social Support (‘Bedrijfsburo’ in Dutch, [BB])	October 16 th , 2017
4	C. ter Braak	Team manager Strategy and Development (Strategie en Ontwikkeling’ in Dutch [S&O])	January 9 th , 2018
5	C. Spruijt	Team manager Environmental Plans and Licenses (Omgevingsplannen en Vergunningen’ in Dutch [O&V])	February 19 th , 2018
6	R. Reuselaars	Advisor BAO/Demand manager	August 8 th , 2017
7	M. Rijksen	Coordinating demand manager	October 16 th , 2017

8	H. Derksen	Financial controller	March 9 th , 2018
9	R. Haverkamp	Alderman of Finance	November 27 th , 2018

During the process of the interviews, some difficulties were encountered that endangered the quality of the research. At the start of the interviews in November 2017 a conversation took place with one of the team managers that was supposed to be interviewed during that week, where it was admitted that she did not know what exactly ‘de Connectie’ did for her and her team and why it existed altogether. This was about five months after the official start of the new structure and almost a year since the unofficial start. This showed that the implementation of the shared services had been far from successful as there were team managers that depended on it that still did not know why it existed and how it worked. Executing interviews about the impact of an organizational change is pointless if the impact is not visible yet. Because of this, some interviews were postponed to the start of 2018 to ensure everyone knew about and had dealt with ‘de Connectie’ in some form. Even then, demand management was in some cases talked about as a ‘new’ initiative while it has been part of the plans since the first proposals of the plan in 2016. Overall this disconnected attitude that was found in some parts of the organization will have had its impact on the validity of the research. Respondents who are not fully aware of the changes that have been made will likely not be able to reflect on them in a complete way.

3.3.2 Documents

‘De Connectie’ has granted access to certain documents that describe its development process and relevant decisions. Below will be listed which documents were selected and used for analysis followed by a short summary of the content.

Table 5: Documents

Document Title	Summary
Bedrijfsplan ‘de Connectie’ definitief	This is the definitive plan that describes the development of ‘de Connectie’. It covers the goals of ‘de Connectie’ as well as which people and departments are involved and what the projected budget is.

Lokaal Transitieplan Rheden, 3 december, versie 0.7	A document describing how the transition from the old structure to the new structure will take place. It includes the new structure and how this will be achieved
Formatiemutatie naar de Connectie <i>Confidential</i>	A spreadsheet displaying what tasks have been impacted by 'de Connectie' and in what way.
Intergemeentelijke Uitvoeringsorganisatie. <i>Business Case</i> , Arnhem, Renkum, Rheden	Business case developed in 2015 that proposes the use of shared services for the three involved municipalities
Proces van Vraag & Aanbod (demand & supply)	Conceptual outline of how the demand tasks will be implemented in the organization.
Dossier Afspraken en Procedures <i>Confidential</i>	Unfinished document containing early agreements and procedures between 'de Connectie' and the municipalities

These documents were selected as they were relevant to the process of developing and implementing 'de Connectie'. The document 'Formatie mutatie naar de Connectie' and 'Lokaal Transitieplan' are especially supportive to the interviews as they give an overview of the impact the creation of 'de Connectie' has had on the tasks that remain in the municipality of Rheden. Using both documents and interviews as source for data is a form of triangulation and gives the results an improved reliability (Yin, 2003). The documents have been provided by employees of the municipality of Rheden. The documents 'Formatie mutatie naar de Connectie' and 'Dossier Afspraken en Procedures' unfortunately contain information that cannot be made public, and will therefore not be available for review. These and other ethical choices will be further justified in paragraph 3.7.

3.4 Operationalization

The goal of this study is to assess the controllability in the municipality of Rheden and determine if this could have been impacted by the structural changes that have been made. To achieve this, the MST as described by de Sitter (1998) is used in combination with a measurement instrument

by Christis et al. (2013). Now, an overview of the concepts used in this study with the corresponding dimensions and indicators will be made. The two used concepts for this study are ‘organizational structure’ and ‘controllability’.

3.4.1 Organizational structure

The first concept used in this study is organizational structure. Achterbergh and Vriens (2011, p. 240) have formulated a definition of organizational structure derived from several definitions by de Sitter (1998): *“the grouping and coupling of transformations into tasks and the resulting relations between these tasks relative to orders.”* For this study, the organizational structure of the municipality of Rheden is the subject. The structure of ‘de Connectie’ is left out due to time limitations. The operational definition of organizational structure in this paper will therefore be: *“The grouping and coupling of transformations into tasks and the resulting relations between these tasks relative to orders in the municipality of Rheden”*

Organizational structure in terms of MST consists of two sub-structures; the production structure and the control structure. These two concepts can be seen as the dimensions of the concept of organizational structure as they make up the total structure of an organization. De Sitter (1998) also gives the indicators of these dimensions with his seven parameters. These parameters allow researchers to give an empirical estimate of organizational structure. The first four parameters are indicators of the production structure. The fourth parameter, ‘separation between the operational network and regulatory network’ is a unique one. It can be argued that it is an indicator for both control structure and production structure. Since this study is heavily built upon the description of MST made by Achterbergh and Vriens (2011), their logic will be followed by appointing this parameter as an indicator of the production structure alone.

Creating items that measure these indicators correctly is a challenging task. Asking employees how their tasks are ‘functionally concentrated’ or ‘to what extent the regulatory tasks and operational tasks are separated’ is not effective as they will most likely not understand the question. This has been confirmed after the initial conversations with employees. These conversations also showed that the terms ‘regulatory tasks’ and ‘operational tasks’ had different meanings in the context of the municipality and MST. Before starting the interview, an explanation will be given about these two concepts to prevent misinterpretation.

To assess the parameter values correctly, the questions will have to be relatively general in terms of tasks and work division. It is up to the researcher to make an estimate of what the values are based on the description made by the employees. It is useful to create themes that these questions will have to cover. Each parameter will be such a theme and the questions asked in the interview will have to discuss them. The first question of the interview will discuss the production structure and the themes for this question are thus the first four parameters. The second question will cover the control structure and the themes are the last three parameters. After each predetermined question it is up to the researcher to guide the interview so that the themes will be discussed. The questions that have been formulated for this concept can be found in appendix B. Now that it is determined how the parameter values will be assessed, it is necessary to incorporate change into the instrument. To measure the changes in parameter values, the respondents will be asked on what exactly has changed in their tasks since the implementation of shared services. They will be asked whether tasks have been transferred to de Connectie, if tasks have been removed or created and if tasks have been split up or enhanced. The description given after earlier questions is used as tool to

3.4.2 Controllability

The second concept of this study is ‘controllability. De Sitters definition of controllability is *“the ratio of the potential for regulation and the required regulation.”* (as stated in Achterbergh & Vriens, 2011, p. 246). As with ‘organizational structure’, the subject of this study is the controllability of the municipality of Rheden. The operational definition of controllability in this study will be: *“the ratio of the potential for regulation and the required regulation in the municipality of Rheden.”*

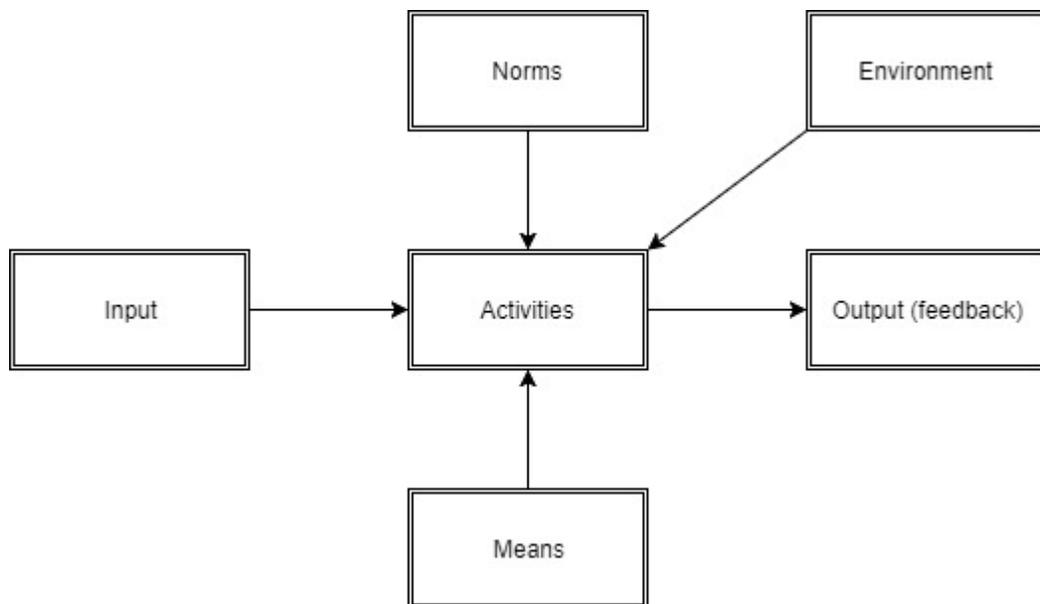
To measure the controllability, the ‘work pressure instrument’ of Christis, Moesjker and Kersjes (2013) will be used. Due to it being largely based on the principles of MST it can be adapted and used as instrument in this study. The operationalization for this concept is going to be derived from the instrument itself.

First, controllability can be split up in two separate concepts that have their own dimensions. These are ‘potential for regulation’ and ‘required regulation’. Together they form the ratio mentioned in chapter 2:

$$\text{Controllability} = \frac{\text{Potential for regulation}}{\text{Required regulation}}$$

Potential for regulation entails the total regulatory capacity of all the employees in an organization. Employees can, according to Christis et al. (2013) deal with disturbances in two different ways: their organizational ability and their personal ability. These are the dimensions of the concept. Within their organizational ability an employee can either internally deal with the disturbance by acting themselves, or externally deal with the disturbance by cooperating with others either directly or using periodical meetings. When neither are possible, the employee must rely on his or her personal ability. Resolving problems of the organizational route shows however that the structure of the organization is usually a sign that the organizational structure is not up to standard. Christis et al. (2013, p.26) show that this behavior will lead to a vicious cycle that even further decreases flexibility and increases potential for disturbances. A sound organizational structure makes sure the employees have enough organizational ability to deal with disturbances without having to rely on informal solutions.

‘Required regulation’ is the total amount of disturbances employees in an organization must deal with. Since employees act as part of a network and have their own workplace, these two are the possible origins of disturbances for employees. The network of an employee consists of the actors he or she interacts with during their work. According to Christis et al. (2013) the workplace consists of six parts: the input, norms, means, environment, feedback and the activities themselves. Figure 3 gives a schematic overview of the workplace.



Figuur 3: overview of the workplace (Christis et al., 2013, p. 9)

These parts are, together with the network of the employee, the dimensions of the concept 'required regulation'. The indicators for all of them are undefined as they differ for each employee. The instrument gives, in some cases, examples of what the employee can consider when describing the dimensions but leaves most of it to themselves. Figure 3 gives an overview of the operationalization.

The work pressure instrument relies on the description of the indicators by the employees themselves. When these descriptions are given, questions are asked about the disturbances they face in each of the dimensions. For each of the disturbances they are asked if they can deal with them, and if so, how. The interview guide for this part can be found in appendix B.

Measuring the change in this concept is difficult. Using the same technique as with the concept of structure does not work quite as well. The 'old' situation of disturbances and regulatory potential is hard to remember for a respondent and asking this directly will not likely result in a truthful overview of the controllability. The solution in this thesis will be to focus on change in controllability. The respondents will be asked what new disturbances have arisen since the implementation of shared services and if they were able to deal with them within their organizational capability. Whenever a new bottleneck arises, this has a negative impact on the controllability. To also account for a positive effect of shared services in the organization, the respondents will also be asked whether bottlenecks have disappeared. If a bottleneck disappears because the disturbance no longer exists or the employee has now the capacity to deal with it, the controllability will increase. The final result of the work pressure instrument will be an overview of new bottlenecks and solved bottlenecks.

3.5 Validity and reliability

To make sure that the results of the study will be both credible and trustworthy, qualitative research has to consider the validity and reliability (Creswell & Miller, 2000, Golafshani, 2003). First the validity in this research will be discussed. Validity can be tested on three different aspects, according to Rowley (2002). First is construct validity; this tests whether the correct concepts have been used. The second test is that of internal validity; this is concerned with the causal relationship of the concepts in the study. Third and last is the test of external validity. External validity is the degree to which the findings can be generalized. To ensure the construct and internal validity in this study some measures have been taken. Multiple sources of evidence

were used such as documents and interviews. This process is called ‘triangulation’ and it can “*reduce the impact of potential biases that can exist in a single study.*” (Bowen, 2009, p. 28). Besides this, an extensive description of the concepts as well as their causal relationship are given to justify the correctness of this relationship. External validity is often not the focus of qualitative research, as the data is too specific to generalize to an entire population (Johnson, 1997). In this study external validity will be addressed as Johnsons (1997) ‘naturalistic generalization’. This means that the data will have to be generalizable to others in the same case. This can be achieved by documenting the information about the respondents as well as the methods used (Johnson, 1997). Even though a reasonable number of interviews have been done, not all different kinds of employees that are found in the municipality will be represented. This does negatively affect the generalizability in Johnson’s (1997) terms but is the best that can be done with the resources and time available.

Reliability in qualitative research is concerned with the ‘trustworthiness’ of the research (Golafshani, 2003). There are several definitions to be found in literature such as Joppe’s (2000, p.1): “*The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable*”. For the results of case studies to be reliable, interviews and analyses “*should not be dependent on the researcher or the instrument*” (Vennix, 2011, p. 186). The main concern of reliability thus seems to be the replicability of results. To address this, the methods of this study were described with as much detail as possible for researchers to be able to trace the steps and replicate the process.

3.6 Method of analysis

In the next chapter the data gathered during the research will have to be organized and interpreted. To do this, the interviews will be displayed in ‘conceptually clustered matrices’ (CCM), as proposed by Miles, Huberman and Saldana (2014). This method uses a matrix that organizes the data per respondent and themes. This method can be used for both inductive and deductive research. This research has a deductive nature which means there are already themes in literature that can be used. An example of a matrix is shown in table 6:

Table 6: example of a conceptually clustered matrix as described by Miles, Huberman and Saldana (2014)

Respondents	Theme 1	Theme 2	Theme 3
Respondent 1			
Respondent 2			
Respondent 3			
Respondent 4			

The themes in this research will be the seven parameters as described by the Sitter (1998) and the bottlenecks that were either new or solved by de implementation of ‘de Connectie’ as registered in the work pressure instrument by Christis (2013). The cells for the parameters and the work pressure instrument will be handled differently. The cell covering the seven parameters of de Sitter will display quotes from the interviews that describe or give an indication of the value and change of this parameter. If a specific quote suggests an increase or decrease of the parameter this will be stated before the quote. If the quote is merely a description of the situation without indication of a change in value it will have no additional note. Based on these quotes from the interviews an estimate can be made of the changes in the parameter value for each employee. As was stated in chapter two, the norm for the parameter values is to ‘decrease’. The scale for these estimates will consist of three possible values: ‘increased’, ‘unchanged’ and ‘decreased’. The cells covering the work pressure instrument will display the bottlenecks that were either new or solved as perceived by the respondents. Based on this, an assessment of the change in controllability will be made. If there are more new bottlenecks than solved bottlenecks it can be argued that controllability has decreased and vice versa.

The biggest advantage of using the CCM is that it takes a large amount of data and organizes it so that comparisons can be made between the rows and columns of the matrix (Miles et al. 2014, p. 178). By reading across the rows of the column, a ‘thumbnail profile’ of the respondents can be made. Reading the columns gives an overview of all the respondents answers for that parameter or bottleneck. Besides this, creating such a matrix also allows for distinction between respondents in groups. These groups consist of respondents that are likely to have similar or comparable answers as they perform similar tasks or are related via other characteristics. By doing this, not only individuals in the dataset can be compared but larger numbers of respondents as well.

A disadvantage of the conceptually clustered matrix is that when it is used deductively, it usually does not allow for other, unknown concepts or aspects to be explored as the data can either be

placed in the matrix or is left out. This can be solved by introducing extra columns at the right side of the matrix for exploring other relevant themes that are not addressed in the theoretical chapter of this study. During the analysis of the data a new theme emerged that was interesting to incorporate. To do this, one extra row has been added called 'strategic alliance management'. In this row, quotes will be added that were interesting in the context of this theme. The theme will not be addressed in the analysis with the main concepts of this study but will have a separate paragraph at the end of the analysis where these findings will be discussed.

Miles, Huberman and Saldana (2014) advise a limited number of themes that are displayed in the matrix to prevent it from becoming unclear. The mentioned maximum of five themes will be exceeded in this study which will have its effect on the clarity of the final matrix. To improve this the participants will be split up in three groups: the team managers, the demand managers and the top of the organization. This will not decrease the number of themes, but it will divide the information in the matrix over three groups and thus make it easier for the reader to interpret. The logic behind this categorization will be further explained in chapter four.

During the analysis, the interviews will be discussed together with the documents selected for this research. The interpretation of the documents is subjected to a different kind of analysis as they are not made specifically for this study. There are documents with unusual layouts and single paragraphs of large documents that are of interest to this study. The different layouts of the data in the documents make them unfit for use in the conceptual matrices. This, together with confidentiality reasons has led to the decision to leave the documents out of the matrix. The documents have been read carefully and were interpreted by the reader within the framework of the study. Whenever possible and useful, the contents of the documents will serve as an addition to the data gathered in the interviews. If referencing interviews or documents is required, this will be done by mentioning the relevant respondents or documents. The full version of the CCM will be provided in the dataset of this study.

3.7 Research ethics

In management research, as opposed to for instance medical research, the risk of harming the subjects in the process is not very high. This does not mean that the wellbeing of the employees can be left unchecked. As Bryman and Bell (2007) mention, 'wrongdoing' is a concept to consider in the field of management research. They describe wrongdoing as "*a failure to treat*

research participants as important in themselves, researchers instead viewing them as a means to an end.” A code of ethics as designed by the American Psychologist Association (APA), can be used to make sure that the process of the research adheres to a certain standard of quality and ‘wrongdoing’ is prevented. This code of ethics contains “*guidance for psychologists and standards of professional conduct that can be applied by the APA and by other bodies that choose to adopt them*” (APA, 2016). In the guide of ethics, five principles of ethical research are stated: beneficence and nonmaleficence, fidelity and responsibility, integrity, justice, and lastly respect. These principles are the foundation for the decisions that have been made during the research.

While conducting the interviews and gathering the data of this research, respondents were treated with respect and informed about the research sufficiently. Before every interview the respondent was told about the content and goal of the research and they were given an outline of what the interview would look like. It was asked whether the interview could be recorded for transcription purposes. Withdrawing from the interview or denying answers was possible at any moment during the interview, as well as retracting statements afterwards. The transcripts of the interviews will not be shared outside of the supervisors of the thesis and the researcher. When transcription was finished, all recordings of the interviews were destroyed.

Guaranteeing a certain degree of anonymity for the respondents is important. Within the context of this study however, complete anonymity is impossible. Due to the public nature of municipalities, employees’ records are open for everyone to see. Since the functions of the respondents provide some context to the results of this study, it is not possible to avoid any references to these respondents and their interviews. In the analysis in the main document, the employees that were interviewed will be referred to with their job title.

Some respondents were kind enough to provide documents that contributed to this thesis. However, some of these documents contained sensitive information that could not be shared with others at request of the employees that provided them. To make sure these requests are fulfilled, the specific documents will not be made available for viewing.

4 Analysis

In this chapter the data that were gathered in the interviews and document selection will be interpreted and discussed. First, an overview of the general changes will be given based on the description given by the respondents in the interviews and the documents. Second, the controllability and its changes within the three groups will be discussed. Third, the changes in structure in the three groups will be discussed. When the changes in the variables have been assessed, the gaps between the norm values and actual values can be determined. Finally, if possible, the gaps will be linked to each other.

It was mentioned in the previous chapter that by using the conceptually clustered matrices, thumbnail profiles can be created of each respondent and each theme. During the interviews it became apparent that there were groups of respondents with results that can be categorized. Among these respondents the results appeared to have either some similarities or they stood out from the rest for other reasons. The three categories of respondents in the conceptually clustered matrix are thus: The top of the organization, consisting of the alderman of finance and the financial controller; the team managers, of which five were interviewed; and the demand management; one regular demand manager and the coordinating demand manager. The respondents' thumbnail profiles are grouped following this reasoning and will be discussed together in the analysis.

4.1 System in focus and overall changes

The new situation of the municipal organization of Rheden is the focal organization in this thesis. Appendix C portrays the organigram of the municipality. It consists of three domains: the social, spatial and supportive domain. The social and spatial domain contain most of the primary transformations of the organization. The municipal organization has its own director, or municipal clerk, and secretary as can be seen in appendix C. Above them are two groups of actors that are vital to the municipal organizations: the board of B&W and the city council. During a period of four years, the elected group of people in the city council are in charge of the municipality. This means that the city council makes the strategic plans and is responsible for setting the goals for the municipality. These strategic plans are communicated to the board of aldermen and the mayor in the form of assignments (respondent 9). They will take up these

assignments and will create plans with the help of the municipal organization (respondent 4, 9). When the plans are finished, the board will present them to the city council who will then approve or decline the plan.

The municipal organization is thus where most of the policies and plans are created. The social domain is concerned with issues like healthcare and social support in the region, while the spatial domain handles the issues regarding the building plans and licenses as well as environmental issues (respondent 3, 4, 5). The supportive domain mainly performs advisory tasks and customer contact (respondent 1, 2, 6). Other supportive tasks that used to be part of this domain as well such as administration and IT are now part of the shared service center and are no longer within the focal organization. The three domains of the municipality of Rheden all consist of several specialized teams with their own team manager, or in the case of team BAO, two team managers (respondent 2). These team managers perform a large variety of tasks that ensure the well-being of the teams. They perform supportive tasks such as administration (respondent 6), planning (respondent 1) and other facilitatory tasks, but also have a large amount of the operational regulation in the teams because they are the first actor the employees will step to when needing help (respondent 6). Besides this, team managers are the link between the politics and the practices as they can discuss the plans with the board and give their own opinions and perspectives (respondent 4).

In the supportive, social and spatial domain the impact of 'de Connectie' has been impactful. The ICT team was the first of the teams to be transferred to 'de Connectie' (personal communication, M. de Bruijn, 2017). This happened in 2016 and was a test before the other teams were transferred. Then, on June 1st 2017, the facilitatory team moved as well. From this moment the supportive domain of the municipality was left with two teams: BKC and BAO.

Team BAO decreased in size by about twenty percent (Gemeente Rheden, 2016, p. 18). The 'span of attention' however, which is the number of different tasks they control, increases. This is caused by the introduction of the demand management. There are six demand managers in total and they are all but one placed in team BAO (Gemeente Rheden, 2016, De Connectie, 2017a). They oversee the assessment and monitoring of the operational regulation concerning their department. Five of the six demand managers are advisors and have the demand management as an additional task. They normally answer to their team managers from team BAO (respondent 3), but in their work as demand manager they answer to the coordinating demand manager. This

relation is shown in the 'escalation model' (De Connectie, 2016a, p. 5) and will be discussed further in paragraph 4.2.2.

For team BKC, the biggest change is the transfer of the tax department. This department made up a third of the total work in team BKC and is no longer part of it. All tasks of taxes except for the advisory tasks and the task 'levying and collection' are handed over to de Connectie, including the management (respondent 1). The demand task regarding 'taxes' is transferred along with the advisor to team BAO and the levying and collection is taken up by an administrative assistant in the spatial domain (Gemeente Rheden, 2016). The transfer of the tasks 'taxes' has no further effect on the structure of the team (Gemeente Rheden, 2016), which means that other tasks remain as they were in the old situation.

Other notable changes were the transfer of the management assistant to 'de Connectie' (respondent 1, 2, 4, 5) and a new 'decision structure' for 'de Connectie' (respondent 8). The financial controller (respondent 8) stated that this new decision structure meant that all three municipalities were involved in the making of the decisions about 'de Connectie', as they are all three owners of 'de Connectie' (Gemeente Rheden, 2016). Together, the municipalities decide on the main tasks, mandates and responsibilities in the organizations (Gemeente Rheden, 2016, p. 5). These decisions would be discussed during periodical meetings (respondent 8). Over time, the frequency of meetings is likely to go down since as the most pressing issues will have been handled (respondent 8).

4.2 Controllability

The bottlenecks that were found using the instrument will be interpreted below. All taken together the new bottlenecks and solved problems will give an idea of how the controllability has responded to the implementation of shared services.

4.2.1 *Team managers*

The team managers in the municipality faced a high variety of new bottlenecks. The most noticeable bottlenecks had to do with a decrease of regulatory capacity. One quote especially summarized how some respondents felt during the first part of the interview, when the team manager BKC stated that 'all of the regulatory capacity was gone' (respondent 1) regarding the tasks that had been transferred to de Connectie.

The new 'products and services' catalogue (PDC) created for the collaboration was found to be limiting by all team managers in the supportive domain and the spatial domain (respondent 1, 2, 4, 5). This especially regarded the management assistance. Four team managers found that their assistant was limited in their work by the PDC, and that they did not have a direct solution for this except working outside of the PDC. Before, the team managers could decide what tasks the assistant would have to perform, but they were now bound to a specific list of actions and services they had little to no influence over. This means, in terms of de Sitter (1998), that internal routine regulation has been taken away from the team managers. The regulatory task of management assistance was already separated from its operational aspect as the operational regulation is largely under control of the team managers. By introducing a catalogue with specific tasks the assistant can carry out, the team managers have lost the internal routine regulation over this transformation. It is no longer up to them to decide which tasks can or cannot be performed by the assistant.

Other disturbances that were related to a lack of regulatory capacity were related to the demand management. To help balance the supply and demand between the municipalities and 'de Connectie', demand managers were put in place. This has introduced new bottlenecks for the team managers. A common bottleneck among the team managers in the municipality of Rheden was that the demand manager was too slow in finding solutions to their problems (respondent 1, 3, 4), while the team manager BB (respondent 3) also stated that the demand manager did not always have sufficient knowledge to deal with the problems.

Besides this, the likelihood of disturbances in the structure has gone up. The use of the PDC can be seen as an increase in the specificity of norms in terms of de Sitter (1998). Achterbergh and Vriens (2011) state that "*the more specific the norms regarding the output the less freedom one has to deal with output variations by means of external (routine) regulation.*". This means that introduction of the PDC has a negative effect on the lower side of the equation of controllability by increasing the specificity of norms. This was not the only way in which the upper side of the 'controllability' equation was affected negatively. Contacting the shared service center was found to be very difficult (respondent 1, 3, 6, 7). When trying to reach a certain department of de Connectie, there is only one phone number that can be used which connected to the front office. The front office is then responsible for redirecting the call or approaching the relevant actor in the organization. The team manager BKC mentioned specific issues as a result of this (respondent 1),

for instance concerning the opening of the building in the morning. Since this was in the hands of de shared service center now as part of the task of the building support employees, whenever this would go wrong, there would be no fast way to deal with it. This suggests that operational regulatory capacity has been removed from the team manager BKC concerning the task of building maintenance as before the changes this could be solved by contacting the employees directly. It also means that multiple tasks rely on the communication between them and only one actor in the shared service center. This means that a lot of pressure rests on the relationship between the municipality and the front office since there is a high variability of messages. High variability in messages between relationships is another factor that can increase the amount of disturbances in an organization (de Sitter, 1998) and therefore negatively affects controllability. Lastly, the team manager BAO (respondent 2) found that in the transfer of tasks, not everything that was given away by the municipality was taken over by 'de Connectie'. This meant that even though there was no budget for some tasks in the municipality, they still had to be carried out because 'de Connectie' would not be performing them. This problem could not be dealt quickly as this requires both the PDC as de Connectie itself to be changed. In terms of controllability, the number of messages for the team managers have gone up, meaning another increase in required regulation. Based on these observations it can be assessed that controllability among the team managers in the organization has decreased as the regulation required has gone up, while taking away regulatory capacity.

4.2.2 Demand managers

As stated earlier in this thesis, demand managers are the liaison devices that bridge the gap between the municipalities and the shared services. They were installed with the start of the shared service center which makes it impossible to create an overview of their 'old' situation. The demand managers among the respondents encountered a number of interesting bottlenecks in their work. Especially the coordinating demand manager struggled with the high amount of people that approached her for questions and solutions (respondent 7). This was reflected in the fact that some team managers stated that the demand managers were sometimes 'too slow' (respondent 3, 4), and the regular demand manager found that the coordinating demand manager was 'too busy' (respondent 6). An explanation in terms of de Sitter (1998) would be that the structure surrounding the demand managers is prone to disturbances because of a high variability

of messages and a high number of relationships in general. Other bottlenecks seemed to be related to 'required regulation' in terms of de Sitter (1998). Both demand managers stated that the PDC was 'unclear' (respondent 6, 7). This meant that a lot of the questions that the clients of the shared services had could not directly be answered. As was mentioned in the paragraph on the controllability among team managers, this shows that the specificity of norms that comes with the introduction of the PDC has its effect on the controllability of the demand managers as well. Other new bottlenecks the demand manager mentioned (respondent 7) were slow and insufficient IT solutions and difficulty in contacting 'de Connectie'.

Maybe the most important bottlenecks that were found among the demand managers concerns the relationship between the municipalities. Instead of dealing with the demands and needs of just one municipality, there are now three parties involved. This means that some processes will take much longer as they all must be satisfied before anything can be done. For example, the demand manager (respondent 6) stated that the process of tender now was much more time consuming and complex since the start of 'de Connectie'.

Another flaw in the relationship between the municipalities is one of power symmetry. Both demand managers (respondent 6, 7) and the financial controller (respondent 8) stated that Arnhem was more influential than the other, smaller municipalities Renkum and Rheden. This lead to decisions that were more advantageous for Arnhem than for Rheden. In terms of de Sitter (1998) this means that the strategic regulation over the entire structure of the supportive tasks has been given away, perhaps even more than might have been intended.

Since the task of demand management is new, a comparison to the 'old' situation cannot be made. There are however several new bottlenecks encountered by these employees, suggesting that the overall controllability in the organization has gone up.

4.2.3 Top of the organization

The last group of respondents includes the alderman of finance and the financial controller of the municipality (respondent 8, 9). The alderman noted that nothing had changed in his daily affairs while the financial controller stated only a few things changed. This also showed in the results of the work pressure instrument. The alderman (respondent 9) stated that no new bottlenecks had come up and none had gone away in his work process as an alderman. The financial controller (respondent 8) faced two new bottlenecks. The first one was that Rheden did not have the sole

decision-making power concerning their supportive tasks anymore. This bottleneck and its effect on controllability has been described above already and entails that strategic regulatory capacity in the municipality has decreased. He also stated that when making decisions, Arnhem sometimes was more influential, as was mentioned in other interviews as well (respondent 3, 7).

In conclusion, the changes in controllability in this part of the organization are relatively small. For the alderman of finance nothing had changed in his way of working, meaning controllability stayed the same for him. In the work of the financial controller very little had changed as well, but his dealings with the other municipalities, and taking the power imbalance between them in mind, the controllability has decreased slightly.

4.2.4 Overall change in controllability

Since the respondents felt that there were no resolved problems as a result of the change in organizational structure and several new bottlenecks were found, it is reasonable to state that the controllability of the organization has decreased after implementing shared services.

It is interesting to see that certain themes returned during the different interviews. One of the respondents stated that he ‘used to go across the hall and solve their problems’ (respondent 6) whereas the users now have to rely on demand management to solve a share of their problems. The most bottlenecks that were found seemed to be related to the loss of regulatory capacity over the activities of de Connectie, and especially the management assistant. The team managers felt they lacked influence over the appointment of their assistant and their activities in general. They had no way to evaluate the assistant’s performance or giving them feedback putting a lot of tension on this relationship. Because of this, the team manager of O&V (respondent 5) did not have the ability to solve a conflict between her and her assistant as this was outside of the agreement and thus the responsibility of de Connectie. This theme of losing control is also visible in the other aspects of the collaboration. The demand manager is deemed ‘not fast enough’ by some of the managers and is said to ‘lack the knowledge’ required to deal with some of the problems. The evidence of a bottleneck was supported by the fact that the demand manager stated that she was approached by seemingly everyone and that her problem-solving capabilities were restricted by the PDC. Connecting these bottlenecks to MST leads to the conclusion that operational regulation (internal and external routine regulation) has been separated further from

the operational transformations and the specificity of norms has increased, increasing the possibility of disturbances with it.

Other bottlenecks that were mentioned among the respondents showed that the required regulation also increased. Some tasks were said to take much more time as they were split up and divided over more actors. This was mentioned in the context of taxes, ICT and faciliatory.

Writing and checking official letters which took extra steps (respondent 2), IT solutions that were slower than before (respondent 3, 5, 7), and levying taxes which was separated from the other tax tasks in de Connectie (respondent 1). These examples show that employees are not only less capable in dealing with disturbances, the likelihood of disturbances increases through a higher number of relations, a higher variability of the relations and more specific norms for these tasks. The actual value of the diagnostic variable can now be determined, as is displayed in table 7.

Table 7: Diagnostic variable

Diagnostic Variable 'D'	Norm value 'D(n)'	Actual value 'D(f)'
Δ Controllability	Increase	Decrease

4.3 Organizational structure

In this paragraph the change in organizational structure based on the MST by de Sitter (1998) will be determined. For the three categories of respondents a short summary of their tasks will be given followed by an overview of the changes that were observed in the interviews and documents. In addition to the interviews that were conducted, it is very useful to look at the documents provided by the municipality of Rheden. These are the documents 'Transitieplan Gemeente Rheden 0.7', 'Formatiemutatie Rheden', 'Proces van vraag en aanbod' and 'Bedrijfsplan de Connectie' (TGR, FR, PVA and BC hereafter respectively).

The interviews were used to create an overview of the changes the employees perceived themselves, which is displayed in the CCM. The cells describing the parameter values of the structure have an estimate attached to them portraying the change in value of these parameters after implementing shared services. A simplified matrix is displayed below (table 8) where the estimates for each parameter and their respective respondents are shown. To increase readability of the table, the cells containing the value 'unchanged' have been left blank.

Table 8: Changes in parameter values

	P1	P2	P3	P4	P5	P6	P7
Resp. 1			increased	increased			increased
Resp. 2			increased	increased			increased
Resp. 3				increased			
Resp. 4				increased			
Resp. 5				increased			
Resp. 6			increased	increased			increased
Resp. 7				increased		increased	increased
Resp. 8	increased						
Resp. 9							

Table 8 shows that the interviews suggest that five parameters have seen an increase among employees. These results will be discussed below where the change in values of parameters based on interviews as well as the documents will be given.

4.3.1 Team managers

The team managers in the supportive domain encountered the most changes. The sizes of both team BKC and BAO decreased in size. Certain tasks were split up as a result of the changes such as taxes (respondent 1) and the creating of official letters and documents (respondent 2) showing an increase of specialization of operational transformations. These changes also meant that the managers had a smaller team to look after, increasing the specialization of regulatory transformations as well. The teams in the spatial and social domain did not change as drastically as the teams in the supportive domain. An impactful change for all of the team managers in the municipality was that their management assistant was transferred to ‘de Connectie’ (respondent 1, 2, 4, 5). Earlier in this chapter this change was shown to be the cause of some bottlenecks. With this transfer to ‘de Connectie’, the dynamic between the manager and the assistant has changed. In the old situation, team managers could decide who would be appointed as their

assistant and, to a large extent, decide what tasks they would perform (respondent 1). There was no clear limit to what they were allowed to do and could even do extra things in the municipality such as helping with a monthly magazine (respondent 1). Now, with the introduction of the PDC and on demand management, the team managers no longer have this freedom to decide what works best for their assistant. In terms of parameters, this means regulatory transformations have been separated from the operational tasks.

To conclude, the team managers have all noticed the changes that came with 'de Connectie', especially in the supportive domain. Here, the teams were affected through transfers of tasks leaving the team managers with smaller teams than before, increasing the specialization of both operational and regulatory transformations.

4.3.2 *Demand managers*

As the bridging units between the actors of the collaboration, demand managers are important in the daily business of the municipality with 'de Connectie'. According to the TGR (De Connectie, 2016, p. 7) the demand management is in charge of:

- supplying information to their own organization and facilitate the collaboration;
- engaging in conversation on the tasks of de Connectie
- make sure that the agreements are fulfilled by the supplying partner;
- alert the partners when anomalies occur in the daily services of 'de Connectie';
- and supervise the daily services of 'de Connectie' altogether.

The coordinating demand manager stated that her most important tasks were involving the right parties when problems occurred and checking whether 'de Connectie' lived up to the agreements that were made (respondent 7). To get a better idea of what structural impact these demand managers have, it is useful to look at the so called 'escalation models' in the municipality.

Respondent 6 stated that an escalation model exists that, in the old situation, was used by employees for all problems and disturbances in the specialized teams of the social, spatial and supportive domain. If a disturbance or problem occurred, the first level of escalation was within the team between the employee and the team managers. If they could not come to a solution together, the municipal clerk would be approached. This escalation model thus consists of three levels and is shown in figure 4:

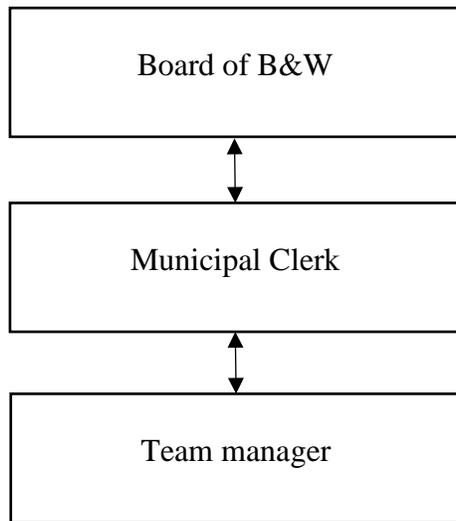


Figure 4: Escalation model for disturbances in the municipality of Rheden

To help the process collaborating with ‘de Connectie’, a new escalation model was developed (De Connectie, 2017a, p. 5, Gemeente Rheden, 2016, p. 10) It describes ‘a set of agreements on intervention mechanisms’ regarding ‘de Connectie’. At first, the users of the shared services are supposed to solve the problem with the corresponding employees from de Connectie. If this does not work out, the demand manager is approached. If the problem persists or if multiple demand managers are to be involved, the coordinating demand manager will attempt to solve the problem or bring the right persons together (respondent 7). The next level involves the municipal clerk and the last level involves the board of B&W. With each progressing level, a larger part of the disturbances will be solved (Gemeente Rheden, 2016). So now there are two escalation models actively used in the municipality; the first one portrayed in figure 4 for general disturbances and problems, and the one portrayed in figure 5 for disturbances and problems regarding ‘de Connectie’.

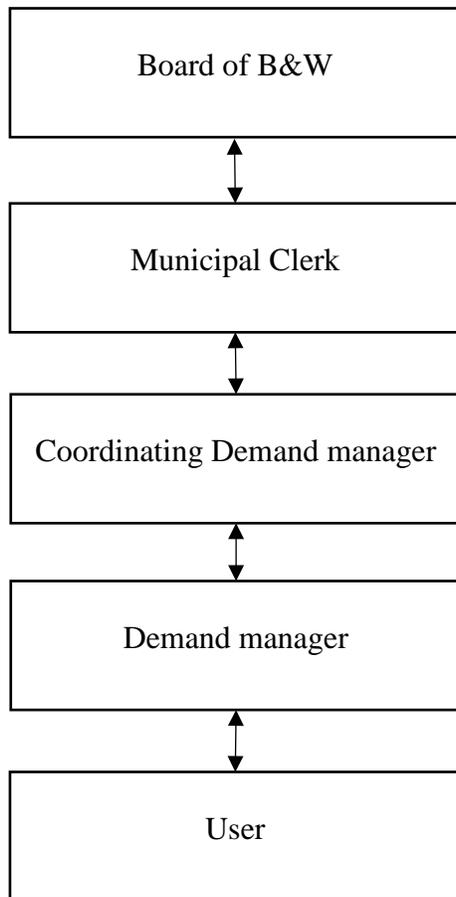


Figure 5: Escalation model for disturbances concerning 'de Connectie' in the municipality of Rheden, adapted from De Connectie, (2017a, 2017b)

As on top of regular demand managers there are extra regulatory sub-transformation in the structure being the coordinating demand managers, the specialization of regulatory transformation has increased. The coordinating demand manager stated in her interview (respondent 7) that her task was to monitor and assess whether 'de Connectie' lived up to the agreements that were made. If not, she did not have the power to 'act' on it as this had to be discussed with their counterpart in the shared service center. This means that the differentiation of regulatory transformation into parts has increased significantly as 'acting' is now separated from the 'monitoring' and 'assessing' transformations.

4.3.3 Top of the organization

Following the reasoning of sociotechnical theory, the control part of the organization is a network of tasks consisting the regulatory transformations (Achterbergh & Vriens, 2011). These can either

be strategic decision-making, setting goals, and operational regulation. The municipality of Rheden has a clear, separate network of regulatory tasks. The respondents in this category (respondent 8, 9) have most of their main tasks in this regulatory network. As alderman of Finance, respondent 9 is part of the board of B&W in the municipality of Rheden. The city council makes the strategic plans and is responsible for setting the goals for the municipality (respondent 9). These strategic plans are communicated to the board of aldermen and the mayor in the form of assignments. They will take up these assignments and will create plans with the help of the municipal organization. When the plans are made, the board will present them to the city council who will then decide what to do with it. The board of B&W does have certain decision-making power over aspects that are not of concern for the city council or need quick decisions.

The financial controller of the municipality checks the financial side of the plans made by the municipality before they are being presented to the board of B&W (respondent 8). He has no strategic regulatory capacity himself as he mainly gives advice to the board, but his influence is significant as his opinion carries a lot of weight (personal communication, R. Haverkamp, 2018). For these two actors, the structural changes were relatively small or, in the case of the alderman, non-existent. The financial controller stated that the only change he faced was the change of the decision structure regarding supportive tasks (respondent 8). Since these decisions now require input from three municipalities and the shared service center itself, the specialization of regulatory transformations has increased. The fact that 'de Connectie' now carries out tasks for all three municipalities does not only impact the specialization of regulatory transformations however, it also signals an increase in functional concentration as the three municipalities are no longer separate flows but are now part of one large entity.

4.3.4 Overall change in structure

The changes described above can all be summarized in a comprehensive manner thanks to the work of de Sitter (1998). His parameters give the opportunity to summarize the changes in structure. Below, the parameter values of the entire municipal organization and its changes will be discussed.

Functional concentration

The organization consists of three domains: the social domain, the spatial domain and the supportive domain. The spatial domain and the social domain are two separate flows of transformations that shared some of the supportive tasks. This means that there is some functional concentration as the supportive tasks are not separated by flow, and this has not changed. Taking all three municipalities and the shared service center into account it can be concluded that the value of this parameter has gone up. Instead of having separate ‘flows’ of transformations across Arnhem, Renkum and Rheden, the three municipalities now share supportive tasks. This is supported by the statements of the financial controller that the decision-making now included all three municipalities, which makes the process more complex. This parameter value has thus gone up.

Level of differentiation in operational transformations

In the municipality there is a clear separation between on one hand the making tasks and on the other hand supporting and preparing tasks, signaling a high value of this parameter (Achterbergh & Vriens, 2010, de Sitter, 1998). The social and spatial domain cover most of the ‘making’ tasks as they are in charge of making the plans and policies, while the supportive domain is mainly responsible for the preparatory and supportive tasks. As stated by most of the respondents the changes in structure involved a lot of the supporting and preparatory tasks as most of them were transferred to ‘de Connectie’. This does, however, not impact the value of this parameter. Supportive tasks have merely been moved to a different location. There are no instances where new making, supportive or preparatory tasks were created or removed by differentiating or merging them with other transformations, suggesting that this parameter value has not changed.

Level of specialization of operational transformations

Achterbergh and Vriens (2010) describe this parameter as the degree to which operational transformations are split up in short-cycled subtasks. The three domains each consist of specialized teams that perform a small part of the overarching transformations ‘social’, ‘spatial’ and ‘support’. The TGR (Gemeente Rheden, 2016) and the organigram (appendix C) show that after the implementation the supportive domain only consists of two teams: BKC and BAO. This

is an increase in the specialization of the supportive domain. This increase of specialization was also visible on the level of the teams. The team of BKC is now more specialized because ‘taxes’ have been transferred to ‘de Connectie’ as well as the ‘building support’. The specialization did not only take place on the level of the teams, but on the level of the individual tasks as well. ‘Taxes’ has been split up in the transfer (respondent 1), leaving a small part behind in the municipality, while the creation of documents has also been split up in smaller subtasks involving more people in it (respondent 2)

Level of separation between operational and regulatory transformations

This parameter assesses the degree to which a separate regulatory network is visible within the organization (Achterbergh & Vriens, 2010). With the introduction of demand managers in the organization, an extra regulatory task has been added to the structure. Instead of directly handling problems with the supporting teams, the demand manager, and in the shared service center the supply manager, will handle problems that may occur. The actual impact of the addition of demand managers may not be as noticeable as it will be in the future since the team managers from the social and spatial domain said demand management was only just introduced and that they had not interacted with the demand managers that much. The addition of a coordinating demand manager increased the value of this parameter even further as regulatory capacity was taken from the regular demand managers.

Level of differentiation of regulatory transformations into aspects

Aspects of regulatory transformations are strategic decision-making, setting goals and norms and performing operational regulation. Setting the goals and norms is a task that is primarily the responsibility of the city council (respondent 9). They set certain goals for the municipality in terms of finances, construction, healthcare and every other aspect of the municipality. It is then the responsibility of the aldermen and mayor to create plans that aim to achieve these goals and norms (respondent 9). Most of the strategic decision-making is also done by the city council. All the plans made by the municipal organization are first approved by the specific alderman, he or she then proposes it to their colleagues in the board and after they approve the plan will go to the city council. The city council then has the ultimate decision power and will decide whether the plans will be carried out. The last aspect of regulatory transformations is operational regulation.

This consists of both internal and external routine regulation (Achterbergh & Vriens, 2010). Team managers and employees of the municipal organization used to have most of this type of regulation in their own hands, including the regulation regarding the supportive tasks. This has changed however since a large part of the regulatory transformation concerning supportive tasks have been transferred to the demand manager. This is visualized in the TGR (Gemeente Rheden, 2016) where the escalation procedure is portrayed. This escalation procedure already existed as stated by the advisor but in a different form. The addition of coordinating demand managers to the procedure has increased this parameter even further as a new regulatory task has been added, taking regulatory potential away from the regular demand managers.

Level of differentiation of regulatory transformations into parts

De Sitter (1998) describes three parts of regulatory transformations: monitoring, assessing and acting. In the old situation no clear distinction between these three parts was made. There were no separate tasks or specific employees that had specific monitoring, assessing or acting capabilities. When dealing with problems concerning supportive tasks employees would simply approach the relevant colleagues across the hall and deal with any problems that came up (respondent 2), or move up in the escalation procedure. Since the introduction of 'de Connectie' the employees have given up this a part of this regulatory ability to the demand management. It is now the job of the demand manager to monitor and assess the supportive input of 'de Connectie' towards the municipality of Rheden. The 'acting' transformation is no longer completely placed within the municipality. A part of this transformation is now under control of de Connectie. In the interview with the coordinating demand manager (respondent 7) it was stated that if problems came up, they would approach the relevant account manager in 'de Connectie' to solve it. This means that there has been a clear increase in this parameter value within the boundaries of the study.

Level of specialization of regulatory transformations

This parameter is a very complex one within the context of this case. When looking at the differentiation of regulatory transformations into aspects and this parameter it becomes apparent an increase in specialization can be found in the operational regulation of the organization. This type of regulation is mostly put in the hands of the team managers which all have their own

specialized teams under them. The teams in the supportive domain have smaller teams under their control, signaling an increased specialization of regulatory transformations. The financial controller stated that in the decision-making concerning ‘de Connectie’, there are now four actors that have influence instead of just the one, increasing the value of this parameter further.

Based on the analysis and the translation to parameter values, a schematic overview can be made of the changes in structure. This overview is given in table 8.

Table 8: Parameters

Parameter (P)	Norm value ‘P(n)’	Actual value ‘P(f)’
Δ Functional differentiation	Decrease	Unchanged
Δ Level of differentiation of operational transformations	Decrease	Unchanged
Δ Level of specialization of operational transformations	Decrease	Increased
Δ Level of separation between operational and regulatory transformations	Decrease	Increased
Δ Level of differentiation of regulatory transformations into aspects	Decrease	Unchanged
Δ Level of differentiation of regulatory transformations into parts	Decrease	Increased
Δ Level of specialization of regulatory transformations	Decrease	Increased

4.4 Determining the causal relationship

The last step of this research is attempting to assess whether change in controllability can be explained by the change in structure. The foundation for this link has been explained in chapter two where with the theory of de Sitter the concepts of controllability and organizational structure were connected. Earlier in this chapter it has been established that the controllability in the organization has decreased while certain parameter values have increased. This does not directly lead to the conclusion that they can be linked, even though de Sitter (1998) suggests that there is a direct causal relationship. There are several other reasons why controllability could have decreased while the increase of parameter value may not have had any impact at all, such as the

turbulent first period of shared services mentioned earlier. It is therefore useful to look at the probable causes of the bottlenecks that were found.

Several new bottlenecks were found to be in direct relation to the demand management and the loss of control that came with it. Team managers found that the demand managers were often too slow and incapable when dealing with the problems concerning support tasks in de Connectie (respondent 1, 2, 3, 4, 5). In the old situation, employees or team managers would solve most of these problems themselves with no intermediary. This organizational change can be expressed by an increase of parameter values as was shown in the analysis. Separation of regulatory and operational transformations was affected heavily by the changes since the introduction of demand management meant that operational and to some extent strategic regulation was taken from the team managers.

Another theme that consistently came up during the interviews that can logically be linked to the changes in organizational structure is the decreased efficiency of transformations that remained in the municipality. Specific examples of this were found in the supportive domain. The first instance was in team BKC where the task of taxes was transferred partially to 'de Connectie'. Respondent 1 (respondent 1) found that the working process was less efficient because of the distance created between the cooperating units. A similar situation was found in team BAO where the creation of official documents was deemed more inefficient as it was divided over several sub-transformations (respondent 2). This led to a perceived increase in waiting time when attempting to send out an official letter. These changes mean an increase in the third parameter of de Sitter (1998) as the specialization of operationalization has increased. This can thus be seen as another instance where the shared services have decreased controllability by altering the structure.

Overall, the decrease in controllability can logically be linked to the change in parameter values, as the structural changes that occurred seem to be related to some of the new bottlenecks that were found. The full extent to which these structural changes can explain the decrease in controllability is however hard to assess. It is not unthinkable that some bottlenecks that appear to be caused by structure are actually caused by turbulence or inexperience by the users or demand management. For instance, over time, the demand management could improve their problem-solving ability, solving the bottlenecks of slow demand management without altering the structure.

4.4 Strategic alliance management

When the municipality of Rheden decided to collaborate with two other municipalities to create the shared service center, they used a cooperative strategy. According to Child, Faulkner and Tallman (2005, p. 1), cooperative strategy is *“the attempt by organizations to realize their objectives through cooperation with other organizations rather than in competition with them”*. This does not completely apply to the case as it is within a public context. Municipalities are not in competition with each other which means that cooperation is not a juxtaposition of competition. The municipality of Rheden still attempts to ‘realize their objectives through cooperation’, but more so as opposed to working as a sole organization.

Looking at the results of this study, certain problems already have come forward that are interesting to view from an alliance management perspective. On multiple occasions during the interviews respondents said that they felt that the municipality of Arnhem was more important or influential during the implementation of the shared services (respondent 6, 7, 8), implying that the needs of the municipalities of Rheden and Renkum were not as important. This led to frustration about certain agreements that were pushed by Arnhem that did not align with the needs of Rheden (respondent 7). Within the cooperative strategy literature, there are several explanations that can be studied.

Before starting alliances or collaborations such as de Connectie, a lot of ground work must be done before everything can be set in motion. Child et al. (2005) describe ‘partner form and selection’ as a very important part of this ground work. When selecting a partner for collaboration, Child et al. (2005) state that there are two kinds of ‘fit’ that are important: strategic fit and cultural fit. Strategic fit describes whether *“the joint value chain of the partners seems likely to achieve sustainable competitive advantage for the partners”*. For a collaboration to be successful, the two partners should be similar in strength. Partnerships between firms that vary greatly in size are unlikely to be successful over longer periods of time (Bleeke & Ernst, 1991). Arnhem, as compared to both Renkum and Rheden, is a large organization. It is roughly three times as big as Renkum and Rheden and can be seen as the ‘stronger’ organization in the collaboration. This imbalance between the organizations should not affect the collaboration formally as the municipalities have equal voting rights. In terms of budget however, Arnhem is much more influential as they contribute 73% of the budget versus 16,9% and 10,1% by Rheden and Renkum respectively (personal communication, H. Derksen, 2018). It seems that despite the

'equal' setup of the shared services the bigger municipality overpowers the other two. Based on this, the strategic fit between the municipalities is likely to cause problems. A different partner more equal in size and power such as Renkum instead of Arnhem might have resulted in a better collaboration. The cultural fit between the partners is not very likely to have caused problems. Organizations like the municipalities of Arnhem, Renkum and Rheden that are similar to each other in terms of process and structure often are culturally very compatible as suggested by the works of Johnson and Scholes (2003) and Bronder and Pritzl (1992).

Another issue that can be addressed within this realm of literature is the management side of the collaboration. Both demand managers and to some extent the financial controller stated in their interviews that it was sometimes hard to combine the different views of the parent firms. This is a known issue in alliances such as 'de Connectie'. In chapter one of this study 'de Connectie' was described as a 'service organization' that performs supporting tasks for the municipalities Renkum, Rheden and Arnhem. This type of collaboration has characteristics of a 'joint venture'. A joint venture "*involves the creation of a legally separate company of which the alliance partners are normally founding shareholders*" (Child et al. 2005, p. 114). General managers of joint ventures face certain difficulties that are uncommon in regular organizations because besides focusing on the performance of the venture itself, the wishes and demands of the parent firms will also have to be considered in the decision-making (Child et al., 2005). When not addressed properly, this can lead to problems such as 'role conflict' and 'role ambiguity' (Child et al., 2005, Rizzo, House & Lirtzman, 1970). Managing an alliance such as 'de Connectie' is thus likely very difficult and has several risks that come with it. Child et al. (2005) give two requirements in managing alliances: The first one focuses on the expectations of the parents involved. These expectations should be aligned by the manager of the alliance to ensure that all actors can profit. The second requirement states that measures should be taken to establish appropriate arrangements, provide leadership and ensuring that information flows are adequate. Even though these insights are not focused on the target group as this research, it would be interesting to see to what extent these requirements are present in the management of 'de Connectie'.

5 Conclusion, recommendations and reflection

5.1 Conclusion

The research question of this thesis was: “*What implications does the creation of ‘de Connectie’ have for the controllability and can this be explained by a change in the organizational structure of the municipality of Rheden?*”. One sub-question was formulated to help answer this question: “*How can organizational structure impact controllability?*” This sub-question has been answered in chapter two where the theoretical foundation of this study is discussed.

To answer the main research question interviews were taken and documents were analysed. First it was determined how the controllability of the organization has been affected which was done by using the work pressure instrument by Christis (2013). Several new bottlenecks were reported by the respondents which suggested both a decrease in regulatory capacity and an increase in required regulation. Team managers lost internal regulatory capacity regarding their management assistant, and users of the shared services in general lost external regulatory capacity to the demand managers that were put in place. The demand management gave up the ‘acting’ part of these regulatory transformations to ‘de Connectie’. The required regulation was affected as well by the changes, as specificity of norms and the number and variability of messages increased through the introduction of the PDC and an increased complexity of the structure.

Secondly, the change in organizational structure was measured. A questionnaire was created aimed at creating an overview of the new working situations for the employees and asking them what had exactly changed. This showed that in terms of de Sitter (1998) the organizational structure had been impacted in several ways. Of the seven parameters, five were observed to have changed. Functional concentration increased as three municipalities merged their separate flows by introducing shared services. Specialization of operational transformations increased as certain tasks were split up into smaller tasks, for example ‘taxes’. Separation of regulatory transformations and operational transformations increased as well as an entirely new regulatory task was introduced that took over some of the regulatory potential from the team managers. The differentiation of regulatory transformations into parts increased as the demand management only had control over the assessment and monitoring of disturbances while acting was in hands of ‘de Connectie’. The seventh and last parameter, being specialization of regulatory transformations,

has increased as well as the size of the teams BAO and BKC have shrunk, giving the team managers a smaller span of regulatory tasks. The loss of control the managers experienced over the tasks of the management assistant decreased the value of this parameter further. All taken together, these changes in parameter values could have caused some part of the observed decrease in controllability, but not with absolute certainty as other explanations can be used as well. It can thus be concluded that shared services have at least temporarily decreased controllability in the municipality of Rheden, but it is uncertain to what extent the structural changes have caused this.

5.2 Recommendations

Based on the findings, advice can be given to the municipality of Rheden to improve the structure and increase controllability. These recommendations should be interpreted in the correct context. As stated in earlier in this study, performance of organizations tends to drop after the implementation period. Even though it can be argued that the decrease in controllability that was observed in this study is caused by structural reasons, turbulent times as a cause cannot be ruled out. Moreover, the situation could be very different in a few months or years. Problems can be resolved naturally without interference over time. For these reasons, the recommendations will be split up; the first paragraph will cover the recommendations in context of the municipality of Rheden in its current state, while the second paragraph will give general recommendations that are not coupled to the specific context or situation of Rheden.

5.2.1 *Recommendations to the municipality of Rheden*

Include all team managers in the demand management of the secretariat. Most demand managers complained that their management assistants were limited by the new rules, and that they had no influence in this at all. This is unlikely to be solved completely as the management assistant is now under control of 'de Connectie', but their reliance on the demand management to solve these issues seems unnecessary. Giving the team managers the demand management task would speed up the process and gives back some regulatory capacity to the team managers.

Remove or change the task of coordinating demand manager. The addition of a coordinating demand manager has a negative impact on the organizational structure. It was primarily installed

to support the demand managers when disturbances went outside of the boundaries of their own department (respondent 7). Within the context of the municipality and considering the demand managers have other tasks besides the demand management, this seems like a reasonable choice. From the perspective of MST this however this is an unwise decision as this addition is another link in the chain as can be seen in the escalation model in the TGR (Gemeente Rheden, 2017) and thus increases complexity. Using a model that allows the regular demand managers to solve problems across teams themselves would simplify the structure. This could have a positive effect on controllability as the regular demand managers would have more ability to deal with disturbances themselves.

5.2.2 Overall recommendations

Examine overall viability of shared services before implementation

Even though the advantages of shared services are obvious as they increase efficiency and are likely to lower costs if executed correctly (Bergeron, 2002, Strikwerda, 2010, Walsh et al., 2008), there are some drawbacks that can really hurt the organization if not monitored closely. These drawbacks, such unrealistic expectations and accountability problems, have been mentioned before by other researchers such as Janssen and Joha (2006a), and Kennewell and Baker (2016). Following the logic of de Sitter (1998) implementing shared services is likely to increase parameter values and will therefore ultimately decrease organizational performance, thus making shared services a questionable strategy. Whether shared services are a viable option depends largely on the context. It remains advisable to properly research the conditions and expected results before implementation.

Examine partner compatibility before entering collaborations

The research before implementation is, as the results of this study suggest, extra important when choosing the right partner. An important aspect of the partner is the size and its power relative to ones own size and power (Child et al., 2005). Collaborating with a partner that is strategically or culturally incompatible brings several risks that may endanger the profitability and longevity of the collaboration overall (Child et al., 2005). During the interviews some frustration was noticeable among the respondents about the influence and power of the municipality of Arnhem. This imbalance in power might be caused by a difference in size between them and the two other

parties involved. To prevent these kind of frustrations, researching possible partners is very important and should always be a major part of the start up phase of any collaboration.

5.3 Discussion and further research

In the initial conversations in the first half of 2017 it was brought up by several actors that employees of the municipality of Rheden feared that, with the implementation of shared services, they would lose control as they would no longer be able to deal with problems themselves because of the long distance that will be put between them and the newly introduced demand management. Based on the work of de Sitter (1998) and the description of shared services given by researchers such as Janssen and Joha (2006a, 2006b), Strikwerda (2010) and Bergeron (2002), it seemed that this fear was justified. This research was aimed at uncovering the actual impact of shared services on controllability and whether any changes in this could be explained by structural changes as the theory would suggest. The alterations that were required to make shared services a possibility (splitting and separating) would increase parameter values and thus inherently decrease controllability. This expectation was to a certain extent confirmed, but especially when taking all three municipalities and the shared service center into account. Looking only at the structure of the municipality of Rheden, the structure has not changed as much. The increase in for example functional concentration over the four organizations as a whole is not within the scope of the study but might very well be as impactful as the structure within Rheden itself.

At the introductory interviews it was stated that shared services are often not immediately successful in an organization and that a dip in performance during the earlier phases of the process can be expected. Looking at the situation in Rheden, it is very likely that this phase has not been passed yet. This means that the problems that were found can not be linked to structure with absolute certainty as turbulence and uncertainty among employees could have been a relevant factor during the interviews. Recommendations on further research would be to investigate whether, after a sufficient time of 'de Connectie' being fully operative, the dip has been overcome and if certain bottlenecks still persist and why.

During the research it became clear that the perspective of MST was certainly not the only interesting point of view. Strategic alliance management was already discussed in the analysis and can give insight into the power imbalance between the municipalities. Another interesting

perspective that was not mentioned in the analysis but deserves some attention is change management. The process of moving from being separate municipalities towards a big collaboration where boundaries between these entities are vaguer requires a lot of effort. Change programmes such as these often fail because of various reasons (Gill, 2002). Resistance among employees is considered a very influential factor when it comes to the success of organizational change (Waddell & Sohal, 1998). In the municipality of Rheden some resistance existed against the changes that the implementation of shared services brought. Some team heavily doubted the changes that had occurred and questioned their viability. The alderman of finance confirmed this by stating that not everyone was happy with the changes. The case of the management assistant that did not agree with his transfer to 'de Connectie' shows that in some cases resistance leads to a serious dispute that affects multiple actors. There are various scientific perspectives on the concept of resistance and dealing with it. Gill (2002), for instance, focuses on how leadership can ease the process of change, while Piderit (2000) argues that resistance can be decreased by decreasing the amount conflicting feelings, or 'ambivalence', among employees. Resistance in organizations is not always a bad thing. Waddell and Sohal (1998) state that resistance can play a useful role in organizational change as the concept of change is not inherently good for organizations. Resistance balances the sentiments and makes sure that the organization remains stable (Waddell & Sohal, 1998). All in all, it would be interesting to see how resistance has been addressed in the change process of the municipality of Rheden and 'de Connectie'. These perspectives might be able to explain the delays in implementation and the unrest among employees.

5.4 Reflection

In this paragraph the theory, methods and results of the research will be reflected on. The goal of this reflection is to assess whether the choices that have been made during this research resulted in a qualitatively sound study with a fitting answer and if certain improvements could have been made. The theory used in this research has been the MST as described by de Sitter (1998). This theory is versatile and has been useful in this study for the assessment of the changes that have happened in the municipality. The parameter values have given a quick and useful overview of the changes in structure while the concept of controllability has provided a foundation for

measuring the problems that have come with the changes. The choice of MST might however not have been the most interesting as was mentioned above. The lack of control seen on individual level in the employees of the municipality of Rheden might very well be overshadowed by the lack of control on organizational level caused by the imbalance of power between Arnhem, Renkum and Rheden.

Choosing a diagnostical case study as research design was a very logical one as the criteria matched the situation. The works of Verschuuren and Doorewaard (2007) and Achterbergh, Vriens and Doorewaard (2010) have provided a clear structure to this research. Focusing on the change in variables has complicated this thesis. Measuring change based on a one-time study is a challenging practice. This required an interview that made sure that the employees were aware of the 'before' while they were already in the 'after' situation. Getting a reliable overview of the old situation of the organizational structure proved to be possible as the respondents did seem to know how exactly their work had changed. Measuring change in the controllability proved to be more challenging. The work pressure instrument has not been ideal in assessing the changes. Creating a 'before' situation of controllability based on memory was almost impossible, which makes the results of the study unreliable. The solution that was used focused only on the new problems and the solved problems since the start of 'de Connectie'. Logically this should allow the researcher to assess whether the controllability has gone up or down, but it will still, albeit to a lesser degree, rely on the memory of the respondent. They will have to know exactly which disturbances have only just appeared and which may have been around before the start of the shared services. A two-stage data collection would have drastically improved the reliability of the data, but time limitations have made this option impossible.

Using the CCM method by Miles and Huberman (2014) to analyse the data has been both interesting and challenging. The method leaves a lot of freedom to the researcher when being used which fit the qualitative characteristic of this study. The cells allowed for different 'types' of data so the work pressure instrument and the interview data could be gathered in the same matrix. This freedom of use had a downside as well, since the replicability of the results will be hard to achieve. Other researchers might make different choices or interpret data slightly different, making the comparison of results near impossible. This method thus means that replicability of results is not guaranteed.

Reflecting further on the results, it can be concluded that certain issues have had its impact on reliability and validity. The start-up process of 'de Connectie' itself has perhaps been the most influential. During the interviews it became apparent that the transition had been far from perfect. Even though the official start was July 1st, 2017, this did not mean everything was up and running. Even now, almost a year later, de start up process of 'de Connectie' is still not completely finalized and this was noticeable during some of the interviews. Respondents did not always know what exactly the changes meant for them as they had not interacted with 'de Connectie' yet. Completely measuring the consequences in structure and controllability has therefore not been possible as new structural changes can still be made and new disturbances might still arise. This, combined with the fact that not all actors in the organization were interviewed means that the validity of the data is questionable. A similar conclusion has to be drawn regarding the documents used in this study. The documents that were provided were in most cases concepts of documents that were unfinished and sometimes incorrect. Newer versions of these documents were either not yet created or made unavailable for research. Acknowledging that both the validity and the reliability of the data might have its issues due to these conditions, the conclusions of this thesis will have to be interpreted with caution.

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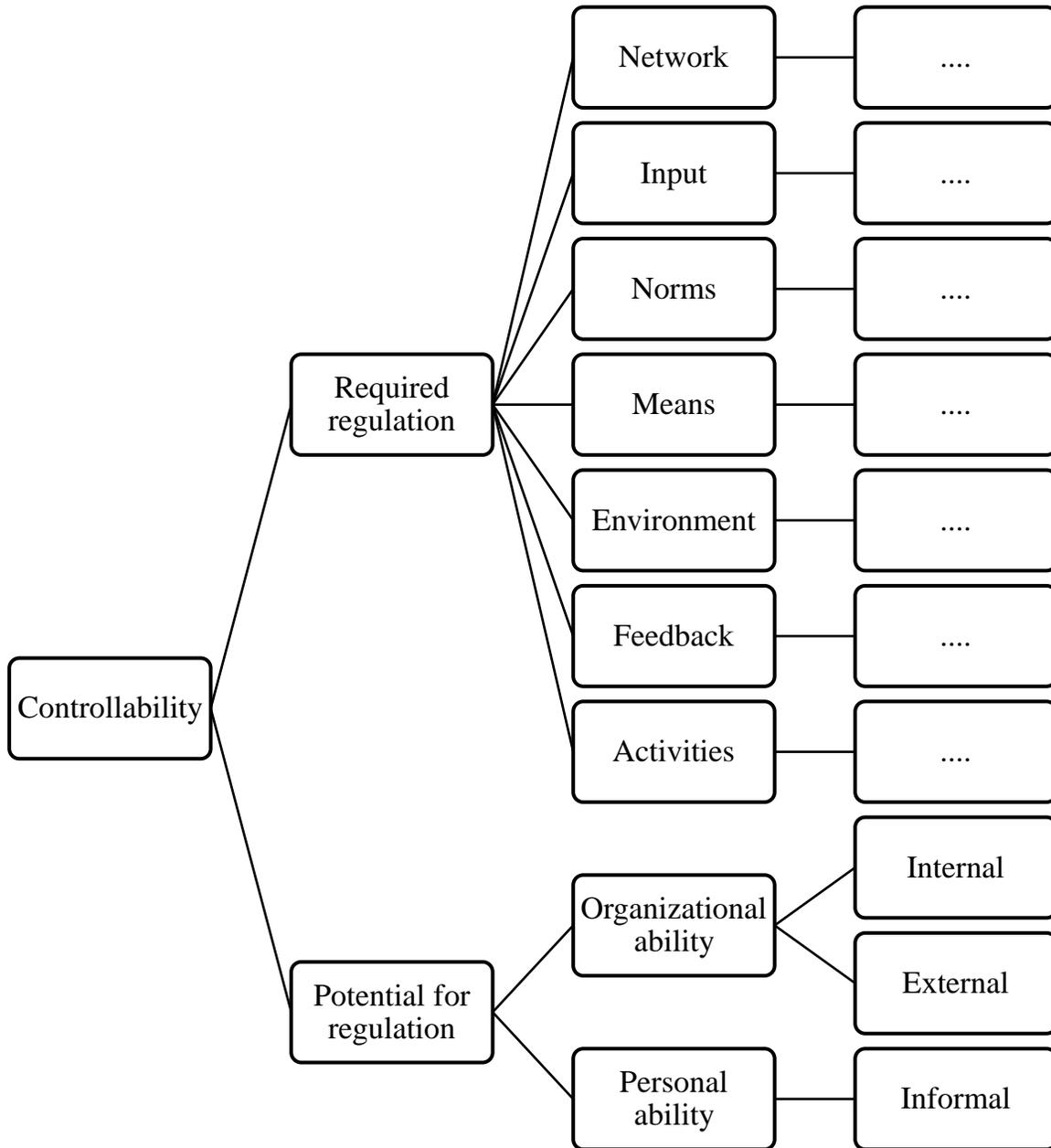
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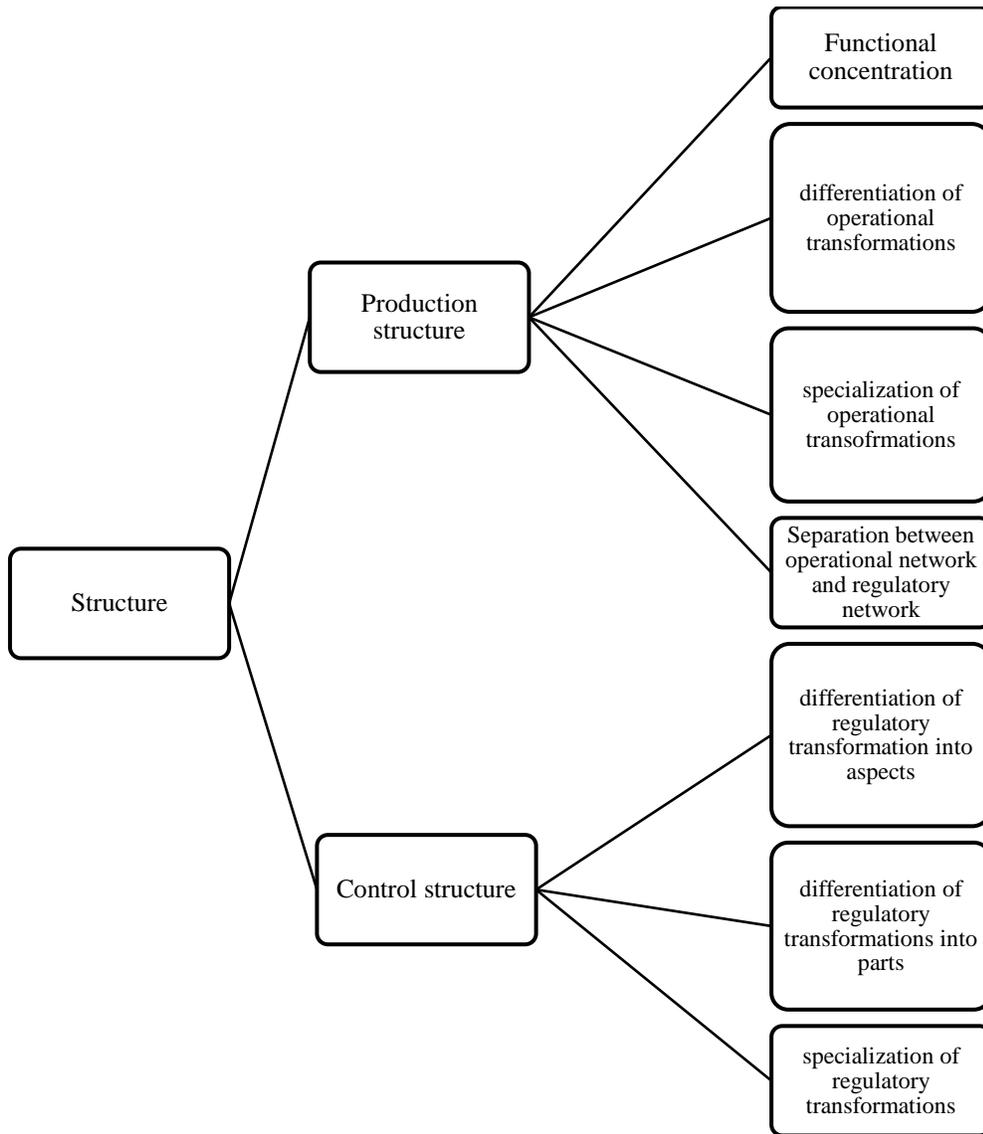
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Appendix A: Operationalization

Controllability



Organizational structure



Appendix B: Interview Guide & Answering scheme

Mijn naam is Robin Jansen, master student bedrijfskunde. Ik ben bezig met mijn afstudeer onderzoek. Het doel van dit eerste gedeelte van het interview is te achterhalen hoe de taken zijn verdeeld in de gemeente Rheden, en hoe dit is veranderd sinds de introductie van de Connectie. Het tweede gedeelte zal gericht zijn op het bepalen van de werkdruk in de gemeente Rheden, en de verandering sinds de introductie van de Connectie. Voor we beginnen zal ik twee begrippen kort uitleggen: ‘regelen’ en ‘uitvoeren’.

Uitvoertaken zijn die taken die de doelen van de afdeling moeten realiseren. Regeltaken zijn de taken die problemen moeten verhelpen. Regeltaken kunnen zijn het bepalen van doelstellingen, ontwerpen van de organisatie en het verhelpen van problemen op de werkvloer. (Zo nodig uitgebreider bespreken)

1. Wat is uw rol in de gemeente?
2. Welke verschillende rollen zijn er binnen uw team?

Thema's:

- *Koppeling transformaties aan order types*
- *Verdeling van maken, voorbereiden en ondersteunen*
- *Niveau van specialisatie, aanwezigheid van kleine subtaken*
- *Scheiding van regeltaken en operationele taken*

3. Hoe zijn de regeltaken binnen het team verdeeld?

Thema's:

- *Stellen van doelen, maken van strategie en operationeel regelen*
- *Meten, beoordelen en ingrijpen*
- *Specialisatie van regeltaken*

4. Hoe is de taakverdeling veranderd sinds de Connectie (zowel operationele taken als regeltaken)?

- *Overplaatsing naar de Connectie*
- *Verdwijning van taken of creatie van nieuwe*
- *Bestaande taken uitgebreid of verkleind*

Nu volgt het tweede gedeelte van het interview, waarbij gebruik zal worden gemaakt van het werkdruginstrument van dr. Christis. Dit instrument heeft als doel het in kaart brengen van verstoringen en problemen en de manier waarop hier mee wordt omgegaan. Hier is een antwoordschema voor van toepassing. Dit antwoordschema geeft drie mogelijkheden:

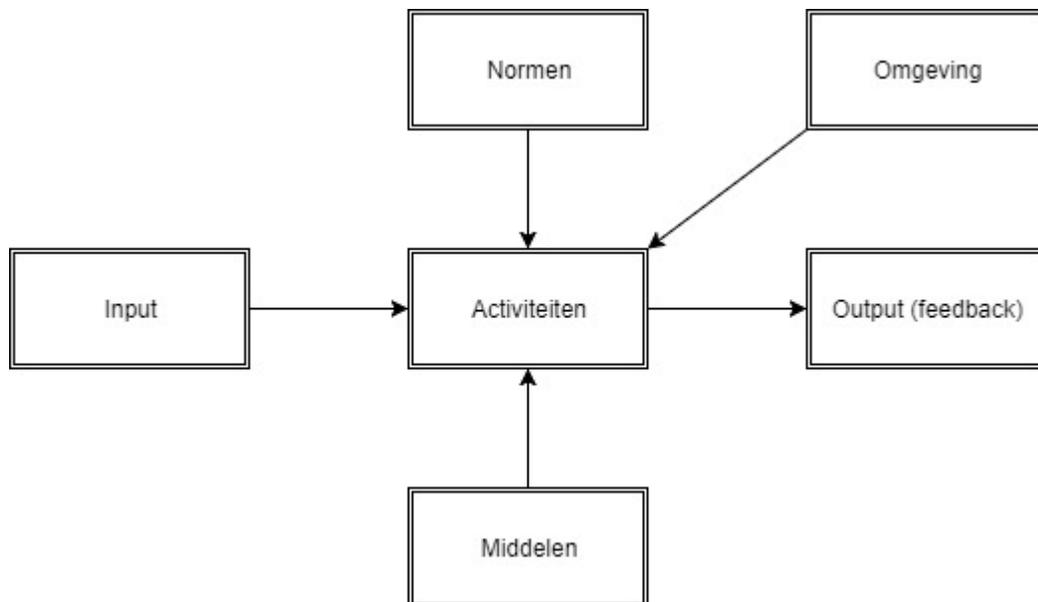
- Intern: je kan het zelf oplossen
- Extern: je kan het oplossen met anderen door samenwerking of periodiek overleg
- Informeel: je kan het 'stiekem' oplossen
- Geen oplossing mogelijk

Om te beginnen zullen we eerst een beeld moeten schetsen van het netwerk waarin u zich bevindt. Dit doen we door het tekenen van het netwerk. Dit is een web van actoren met centraal de betreffende werknemer.

Op basis van de tekening van het netwerk heb ik een aantal vragen:

- Doen er sinds de start van de Connectie nieuwe problemen of verstoringen voor in dit netwerk?
- Hoe wordt met deze verstoringen omgegaan?

Vervolgens gaan we hetzelfde doen met het werkproces. Eerst zullen we een overzicht geven van het werkproces. Dit ziet zo uit:



Ook nu is het de bedoeling dat we bespreken wat deze onderdelen voor u precies inhouden. Nu stellen we voor elk onderdeel van het werkproces dezelfde vraag:

- Doen er zich sinds de start van de Connectie nieuwe problemen of verstoringen voor in uw werkproces?
- Hoe wordt met deze verstoringen omgegaan?

Answering format for the work pressure instrument

Most important problems	Organizational (formal) regulatory potential		Informal regulatory potential	No regulatory potential	
	Internal regulatory potential	External regulatory potential			
		With others	During periodical meetings		

Appendix C: Organigram

