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# [PUBLICNESS AND EXTERNAL NETWORK BEHAVIOR]

in the Dutch waste management sector





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#### Abstract<sup>1</sup>

The academic discourse about external network behavior needs more empirical evidence to provide further understanding of the strategic networking choices managers make. This paper identifies 14 hypotheses regarding the relationships between external network behavior, publicness of the organization and compliance with rules and regulations of managers in the Dutch waste management sector. This sector consists of public organizations, private companies and hybrid forms of organization. The hypotheses are tested using a dataset on the networking behavior and compliance with rules and regulations of managers in the Dutch waste management sector. As is the case in the educational sector, where a similar study had been conducted, managers in the waste management sector seem to differentiate in their networking behavior, albeit in different ways than the managers in the educational sector, as they use neither bureaucratic, nor political network actors as a relevant pattern. The research further shows that publicness of a waste management organization is influential to the size of its manager's network, to the strategic choices about which external network actor he/she invests in and to his/her compliance with rules and regulations. Managers of private or hybrid waste management companies have larger networks, have more contact with peers and with regional and national actors and are less compliant with rules and regulations than managers of public waste management organizations, who in turn have more contact with municipal actors. The paper finally calls for a larger Ndataset and a reliable indicator for performance in the waste management sector to further explore the effects of external network behavior in this sector.

<sup>&</sup>lt;sup>1</sup> The author would like to kindly thank the NVRD, notably M. Goorhuis and E. de Baedts, for allowing the use of their office facilities and contacts, as well as their feedback and support. Additionally, the author expresses great gratitude to supervisor R. Torenvlied from Utrecht University, for his great contribution to this research in terms of input and corrections.

#### Introduction

The external network of the manager of an organization is useful in many different ways, as various studies have indicated since the 1970's. For one, the network can bridge knowledge gaps by linking the organization to another person or organization (network actor) who possesses or has access to a 'nonredundant' flow of information. Non-redundancy in this context means that the information that the network actor provides is not already present in the organization and its direct environment. This is what McEvily and Zaheer (1999) call 'bridging ties'. Another use of the network of a manager is the socalled 'buffering of environmental factors'. This means that the network can help the manager to cope with changes in the environment or context in which the organization operates, through the support that he can draw from his contacts. Buffering of environmental factors can for instance be observed in the support for bureaucratic coping from government officials or peers. Another example where buffering of environmental factors can play a role is when a manager finds support in his network to deal with market shifts from regional structures (Akkerman et al 2010). Agranoff & McGuire (2001) suggest that having an important role in a network, for example by bringing in research dependencies and bridging structural holes, a network actor (or a manager) increases his/her power. "This is a power to that, under many conditions of ultra complexity, characterizes situations better than power over." Even on a meta-level external networking deserves attention, as Provan, Fish and Sydow (2007) argue. Through networks, organizations gain a stronger position that is more in sync with their environment. Also, networks are instrumental in creating better results for the network as a whole, as networks are more effective than the sum of each individual actor. Understanding and researching the workings of external networks is therefore relevant for managers and policy-makers alike. However: "Most studies on networks [...] focus on internal social capital" (Akkerman et al 2010).

#### Network management in the public and private sectors

Recently, there have been empirical studies of the external network behavior of managers in the public sector (Akkerman & Torenvlied 2009, Leana and Pil 2006, Meier and O'Toole 2003, O'Toole and Meier 1999; 2004). These studies have made efforts to quantify and make sense of the shape and day-to-day use of managerial networks. Most of them have taken place in the educational sector (Akkerman et al 2010) and have clearly pointed out that managers with an active networking strategy run better performing schools. Meier and O'Toole (2003:697) conclude that networking management needs to be considered as an important tool for administrative success. Their research proves that the loss of time that could otherwise be spent on internal affairs does not weigh up to the advantages that the network brings in terms of results. Although most empirical research of external network management in recent years has been done in the public sector, there is some research in the private sector that comes to the same conclusions about the linkage between external network management and performance of the company (Stam and Elfring 2008, Peng and Luo 2000, McEvily and Zaheer 1999 and Geletzkanycz and Hambrick 1997).

#### Patterns in network behavior

There is a lot of evidence that networking is linked to success, but it is still unclear how exactly this takes place. As Provan, Fish and Sydow (2007) assess: "Specifically, we focus on the study of interorganizational networks at the network level [...]. This is what Kilduff and Tsai (2003), among others, have referred to as focusing on the 'whole network.' [...] we have found this to be a topic that is frequently discussed but seldom empirically studied." (pp:480) Mannak en Geelhoed (2010) agree with Provan, Fish, & Sydow (2007) and Kenis & Raab (2003) that in scientific literature little is known about the workings of networking as a whole and about the effectiveness of networking. Akkerman et al (2010) put it this way: "Clearly, these empirical studies inform us that managerial networking affects performance, but they still obscure much of the mechanisms that drive managers' networking activities and behavior. Indeed, as McGuire (2002) asserts, most public management research neglects the question of how particular management resources are employed in networks, and focuses mainly on counting contacts and interactions." (pp:2) One of the angles which needs exploration is that of the choices managers make in their networking activities. Akkerman et al (2010) chose to search for patterns in networking behavior of managers and found that managers differentiate between types of actors in their networking activity. These findings suggest that there are underlying factors influencing the network behavior of managers.

#### What are the differences between the public and private sector?

One of the factors influencing the network behavior of managers could be the publicness of the organization. Publicness of an organization is a term coined by Bozeman and Bretschneider (1994) and represents the idea that any organization has to a certain extent a public nature or purpose: 'all organizations are public'. The degree of publicness is determined by three dimensions: their ownership (which is the conventional way of defining public and private (Rainey et al 1976 in Boyne 2000)), their funding and the level of control political institutions have over them. Because no organization is fully free from all three dimensions, all organizations have some degree of publicness in them. Some private companies are entirely dependent on funding from government and some state-owned organizations receive little funds and are largely responsible for their own policies. Taking this into account, there are still differences between public and private organizations (Bozeman 2000). These differences revolve around organizational goals, organizational structure, personnel and purchasing processes and workrelated attitudes and values. Public organizations are generally considered to be less efficient than private ones. Based on this conception or – as Bozeman (2000) calls it – a priori idea, New Public Management practice tries to introduce private business models into public organizations to increase their performance (Ferlie et al 1996). NPM policies have resulted in an increase of cooperation between government and the private sector (public private partnership) and new (hybrid) forms of organization, such as quango's (quasi non-governmental organizations). The assumptions underlying NPM imply that managers of public and private organizations act differently. This difference is likely to influence the networking behavior of managers. However, some people argue that public organizations have nothing to gain from implementing private management practices (Allison 1979). Boyne (2000) on the other hand claims that empirical evidence shows this to be false and "therefore the injunction that public managers can learn useful lessons from private managers is worthy of serious, but cautious, consideration" (ibid:98).

#### Linking network behavior to publicness of the organization

As mentioned before, there are separate studies about networking behavior in the public and private sector. This research will make a distinction between public organizations, private organizations and hybrid forms of organizations, in an effort to find out if the form of organization influences the network behavior of its managers. This is likely to be so, when taking into account the idea of *path dependency* (Page 2006; Pierson 2000) - organizations are guided and constrained by choices made in the past. So, the 'path' that the organization has taken is a relevant factor in determining the options for operations in the future. McEvily and Zaheer (1999) introduce another notion; they "...propose that these 'network resources' (Gulati, 1999) enable and constrain firms' abilities to acquire competitive capabilities through differential exposure to information and opportunities" (pp:1134). From these ideas follows the assumption that contingent factors of the organization are influencing the behavior and choices made by the organization and, in turn, their managers. In other words: the form of organization partly determines the way it functions and the type of knowledge that is present or lacking and hence it is likely that it also influences decisions of the manager while networking. Thus, hypothetically, I expect a difference in network behavior between the different forms of organization.

#### Research question

There is one study that has previously researched this relatively unexplored terrain. Meier et al (2009) have used managerial networking as one of four dimensions to seek differences between public and private universities. They "...asked university presidents how frequently they interacted with nine environmental actors from daily to never" (pp12). They found no significant differences between public and private universities. However, more studies of network behavior in the private sector and hybrid forms (i.e. mixtures of public and private sector) are needed to expand the empirical knowledge about external network management in sectors other than education to find differences in the network behavior of public and private managers. Also, there are other areas than the performance of the organization that can be affected by the external network behavior of managers.

A sector that provides fertile ground for expanding knowledge about external network behavior is the waste management sector. The mix of public, semi-public and private organizations in the waste management can provide data about the differences in network behavior between managers of public and private organizations. This data also gives us information about another area: the compliance with rules by the manager<sup>2</sup>. The central question of this research is therefore:

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<sup>&</sup>lt;sup>2</sup> In this research, it will not even be possible to link the network behavior of managers of waste management organizations to organizational performance, due to a lack of suitable performance indicators. The performance of a waste management company is best described as the success with which it creates a optimal balance between (a) Cost, (b) Quality and (c) Environmental Sustainability. There is no exhaustive ranking of the Dutch waste management organizations in which this is quantified.

What is the relation between the form of organizations in the waste management sector and (a) the network behavior of their managers and (b) their compliance with rules?

The question will be divided into five sub questions. I will answer each question by formulating and testing hypotheses. The sub questions deal with three specific aspects of network behavior, namely the diversity of the network, the patterns in networking behavior and the activity of networking by the manager and the question of compliance with rules and regulations by the managers. After this, I will look at the (possible) linkage between network behavior and compliance with rules. These questions will be discussed further under 'theories'. Before that, I will introduce the research context in more detail.

#### Overview research methods

This study was carried out in the waste management sector. Three research methods were used. First of all, I undertook a qualitative study, which consisted of researching policy documents and conducted five interviews with professionals from the waste management field. These five individuals work in different sub-segments of the waste management sector: one representative from a small municipality, one from a large municipality and one from a private company responsible for several municipalities, as well as two experts from the overarching branch organization NVRD $^3$ . These four different segments cover the several fields in the waste management sector well. Secondly, I did a literature research about the external network of managers. Thirdly, I undertook a quantitative research: a survey was disseminated in cooperation with the Dutch waste management branch organization NVRD $^4$  among all the 122 managers of the waste management organizations in the Netherlands that are members of the NVRD. The response rate was 45%, which resulted in an N of 55. This number is sufficient to carry out the statistical analyses that will be presented in the latter parts of this article.

#### **Research Context**

To better understand the nature of the research population and the constitution of their networks, the following paragraphs will detail the characteristics of the Dutch waste management sector. First of all, we will look at the network environment of its managers and secondly at the types or 'forms' of organization that exist in this field.

#### Three circles of network actors

Based on the qualitative research, a distinction can be made between three groups of network actors. I will divide these three groups of network actors in three 'circles' (see figure 1). The investigated segment of the waste management sector deals with the picking up and transportation of garbage. Its responsibility ends at the point where the waste is recycled, incinerated, used for landfill or otherwise disposed of. Waste management is a public task, which is mainly regulated at the municipal level. This means that the professional environment of the managers of waste management organizations is in its

<sup>&</sup>lt;sup>3</sup> NVRD stands for Dutch "Assembly of Waste Management Directors. See also; www.nvrd.nl.

core concentrated locally, around the municipal civil servants and the municipal council on the one hand and the neighborhoods where the waste is picked up and the waste treatment companies on the other. This is the first circle.

The waste management companies also have a second circle of network-actors around them. This circle consists for example of the regional and national umbrella organizations, which represent the sector in lobbying, provide a platform for contact between peers and provide a knowledge bank that can provide support in daily operations. Another group of actors in this circle are organizations that are involved in the sectors' policies, such as unions and environmental organizations. The second circle is important for the waste management organizations, but contact is less intensive and not as crucial as in the first circle. Finally, there is a third circle of network actors. In this third circle are the actors who have occasional contact with the managers of the sector and relatively little influence, such as the media, political parties and peer municipalities in other countries.

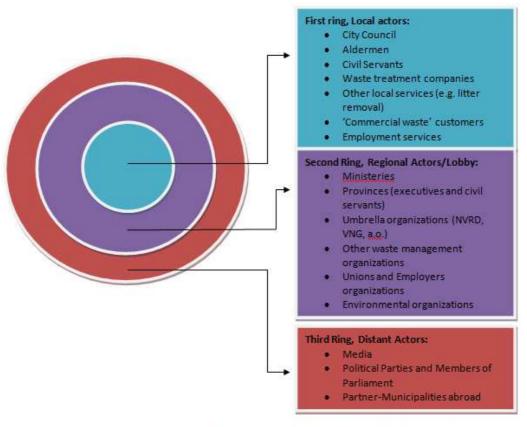


Figure 1, Ring of network-actors of waste management organizations

Having defined three groups of network actors, it is now important to take a closer look at the forms of organization that exist in the waste management sector.

#### Types of organization in the waste management sector

There is an important distinction to be made between internal and external waste management organizations. Internal waste management organizations are run by the municipality itself. These organizations are staffed by civil servants. External organizations, on the other hand, are independent, private companies, albeit operating within a framework that is set by the civil servants of the municipality (or municipalities) they work in. This can be a so-called 'SLA' (service level agreement), a regular contract, or another form of agreement/assignment to define the services provided by the company. In the Dutch waste management sector, these organizations are referred to as 'public companies'. There are also some organizations in between these two extremes. This paragraph provides a short overview of these different types and their institutional characteristics.

The issue of how to organize waste management remains relevant today for local policymakers, which is emphasized by the recent publication of a report called "Market or Government" (NVRD 2010). In it, the NVRD has made an overview of the possible ways to organize waste management; which use different institutional forms. These forms can be categorized in three types of constructions:

- 1. The do-it-yourself organization;
- 2. The do-it-together organization;
- 3. Tendering.

The sub-forms for the *do-it-yourself* organization are internal service, which has civil servants directly working for the municipality responsible for and carrying out the waste management tasks, and quasi-internal ('quango'), which uses a separate organization within the municipal government which is under direct supervision of that government. For the *do-it-together* construction, there are three forms of organization: the joint-structure, in which two or more municipalities share an organization under their direct supervision; a private structure with joint supervision, and a mix between the previous two: a private structure with joint involvement, or 'interest'. If a municipality chooses to use *tendering* to carry out waste management, they can choose between two constructions: a tender to any private entity regulated by European rules and a tender to a Public Private Partnership. All forms in between the internal service and the private company are considered public companies. In this study, three of these forms of organization – the most common ones in the Netherlands – have been incorporated: internal service, joint structure and private organization (see Figure 2.)

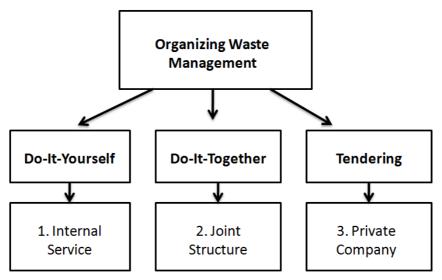


Fig. 2 Forms of organization used in this research.

As the law states, waste management is a public task, for which the municipality is responsible. So the question of which form of organization to choose has two important aspects. One is a matter of efficiency and the other is an interpretation of the responsibility of government. When considering the efficiency of the form of organization, it is primarily important to look at the context of the municipality. A municipality in a rural area might benefit more from cooperation with neighboring municipalities; in urban areas some managers prefer to keep the service internal for reasons of policy-coherency.

The *Market or Government* report (NVRD 2010) details the arguments for each form of organization. In a nutshell, the arguments are as follows: the internal organization allows the municipalities to exercise more control over the service and is more flexible. The joint-structure has cost-efficiency advantages as well as a spreading of risk and allows for more innovation. Tendering has relatively similar advantages to the joint-structure and also reduces the workload and responsibility of the municipality because it no longer has to bother with daily operations. As mentioned above, the choice for a certain form of organization also depends on an interpretation of the role of government. Some managers view the government as the captain of a ship, who needs to set the rules and define the goals and tasks, and gives people assignments (contracts) to carry out. Some feel the entire ship is their responsibility, pointing to the fact that waste management is a public service.

#### Theory

I have formulated four hypotheses and will present them in this chapter. These hypotheses follow from the literature about network behavior, the interviews with professionals and documents relating to the debate about the forms of organizing waste management. Afterwards, the hypotheses will be either confirmed or rejected based on the research findings. The hypotheses in this chapter use the definition of publicness that Bozeman (1987) introduced, seeing that there are several forms of organization in the

waste management sector. The idea is that from the internal service to the private companies, there are in-between forms that are gradually less 'public', because of their ownership and their independence from government to make policies (Boyne 2000).

#### Scope of the network

Looking at the distinctions made between public and private waste management organizations, we notice the focus on the ability to acquire knowledge. However, which of the forms is best fit to foster innovation is unclear. The internal organizations are said to be able to innovate better through government stimulation (NVRD 2010: 5), whereas the other forms of organization are said to be able to innovate better through the larger scale. With this scale comes extra time that is available for research (ibid:7) and development and the classical New Public Management argument of the innovative power of business (ibid:9). Which of the two is most effective should be researched in the future.

Through formulating the following hypothesis, a step towards a more thorough understanding of advantages of either form of organization can be made. The assumption that the increase of the scale is influential to networking is relevant. However, having a bigger network does not conclusively prove that there will be more innovation, because it is the amount of access to non-redundant information that is most important. The fact that the first hypothesis only concerns the size of the network does not make it irrelevant, because an increased size of the network provides the conditions for non-redundancy to exist and therefore makes it more likely that the network is instrumental to the gathering of information and support for the organization (McEvily and Zaheer 1999). I will also focus more specifically on the amount of contact between the manager and third-ring actors, in the context of the size of the network. These network actors usually have a larger distance to the waste management organization that makes it likely that there is non-redundant information present (ibid).

Hypothesis 1: The more private the waste management organization, the wider the scope of the network of its manager.

#### Patterns in networking

As mentioned in the introduction, most research about external networking does not differentiate between types of network actors that managers can choose to invest in. Only Peng and Luo (2000) and Akkerman et al (2010) have shown that a distinction can be made between the patterns of external network behavior, which means that there are groups of similar types of network actors in which managers choose to invest more or less time and effort. Peng and Luo (2000) distinguish between political actors and peers. Akkerman et al (2010), in their research of managers of Dutch primary school directors, also find political networking behavior to be a significant pattern, but also find nine other patterns: "(1) 'bureaucratic coping', (2) generating 'political support', (3) 'coproduction' with parents and teachers, (4) 'child protection', (5) 'extracurricular activities', (6) 'peer advice' from other school principals, (7) pupil 'care' by other institutions, (8) 'referral' to other schools, (9) 'interest representation', and (10) generating 'informal support'". (ibid:13) Clearly, managers have different styles and make different choices as to which network actors – or groups of actors – to invest in. I expect this to also be true for the waste management sector. The scope of this paper does not allow for a

distinction between ten patterns, though there are two types of support that will be analyzed: Bureaucratic and Political networking. These patterns will be detailed later in this paper.

Hypothesis 2: Managers differentiate in their networking behavior between political and bureaucratic support.

Differences in network activity in general and specifically political and bureaucratic networking

Next to the scope, or total amount of actors in the network of the managers, one can also look at the intensity of the networking behavior. Meier and O'Toole (2003) state that one should be able to measure networking differences and distill a networking management style from comparing the external networking behavior of managers. According to them, a networking management style is defined by "greater levels of interaction with actors that are not direct subordinates or superiors. [...] Superintendents with a networking management style should interact more with [network actors] than those with a traditional hierarchical management style" (Meier and O'Toole 2003). The importance of networking to the manager of a public organization might differ from that of a private manager for several reasons. The first argument for this is the amount of influence the manager has on the policy framework they have to work within from their 'natural' position. Following the Market or Government report (NVRD 2010), private managers cannot influence and coordinate policies on a local level as easily as public managers. This makes it likely that a private manager will need to put more time and effort into trying to create as much of a 'fitting' working environment as possible.

A second argument concerns the working environment of the managers. Public managers don't need to invest in their bureaucratic networking activities as much as private managers because they are already colleagues, often in the same office, and work on a smaller scale. Public waste management organizations also have policies that are more integrated with other policy areas (NVRD 2010) and thus have more overlap and cooperation with other public network actors. Working in this context makes direct contact with network actors, especially in the first – and most important – ring, without having to put in any effort, more likely and therefore, they have less need to put effort into their network. If this hypothesis is proven, it will imply that the private manager needs more network skills and 'networking' will be a more relevant factor in the job description of the private manager. This leads to the next hypothesis:

Hypothesis 3: The more public the waste management organization, the more higher the intensity of its managers networking behavior<sup>5</sup>.

Not only does the importance of the network vary among public and private managers, the type of support they draw from it is also different. This type of support would most likely correlate with the patterns seen in network behavior, for if a manager chooses to invest more in a certain type of network actor, he/she is probably looking for – and will inevitable receive – another type of support. I want to

<sup>&</sup>lt;sup>5</sup> Network intensity in this context means the total amount of contact and the amount of initiative the manager takes towards network actors.

look at the division between patterns in networking by examining the difference between public and private managers in their choice of patterns.

With regards to bureaucratic support, I expect the public manager to have more contact with actors in the bureaucratic pattern. The public manager works closely with the policy making public servants and is therefore more likely to be aware of the reasons and details of rules and regulations. It is also more likely that the manager of a public organization was involved in developing this policy. This does not mean that the private manager does not have a large role in policy development in municipalities, but as a result of the larger distance to the policy maker and the larger scale the private organization works on, I expect there to be less direct involvement in the local policy development. Given this situation, the private manager will need to inform himself more of the exact details of local policies than the public ones and therefore have more need to use their network for coping with these policies. A private manager also has a different formal relation to the municipality, as his organization works on a contractual basis and is not part of the municipality staff. This relation with the municipality, which also brings financial dependency, results in the private managers' accountability for executing their task within the set framework on the one hand. On the other hand, the manager has to work as efficiently and profitably as possible, so he or she will need more support from their network to make sure that the working method follows rules and regulations. A third and final basis for this hypothesis is the scale of the private organization. Private waste management companies usually cover more municipalities and as such, they need to deal with more sets of rules and regulations. However, it is most efficient for the company to have the least possible different methods. Therefore, to standardize as much as possible, the private company might have to stretch the boundaries of the frameworks set by certain municipalities and put more effort into understanding the rules and regulations of different municipalities. From this follows the expectation that a private manager will need their network more for bureaucratic coping than a public manager.

Hypothesis 3a: The more private an organization, the more its manager will use his/her network for bureaucratic support.

For political support however, I expect the contrary. The main aim of a private company is to make a profit. However, the goal of waste management in general is to create an ideal balance between price, quality and environmental sustainability and policy makers will try to reach this balance rather than optimize profits for the companies that carry it out. Seeing that a public organization has the public good as its main goal, its goals will probably be more in line with the rules and regulations set by the democratically chosen bodies that have this balance as their main objective. In this context the private organizations' goals will therefore diverge more from the goals of the actual policies and therefore they have a bigger interest in changing them. To be able to do that, the private manager will need to invest in his/her network with political actors to influence them. So for the reasons that (1) private managers have a larger interest in changing the rules and (2) have more ideas that are more divergent with these rules, I come to the next hypothesis.

Hypothesis 3b: The more private the organization, the more its manager will use his/her network for political support.

#### The link between patterns in network behavior and compliance

An important difference between the forms of organization lies in the possibility for coordination of policy, i.e. the amount of influence in setting rules and regulations that the manager has. One of the arguments for choosing an 'internal service' structure was that it has more ability to direct policy in its desired way and thus a more flexible working environment than a private organization (NVRD 2010). Therefore, the manager of a public organization has more control over the framework within which his organization operates. This leads to the expectation that on the one hand the rules and regulations are more likely in accord with the interest and specific context of the organization and on the other hand the manager will have less difficulty understanding and executing them. This does not mean, however, that the private companies do not have their own specific context and ideas about how to go about the waste management in their respective municipalities. Based on the assumption that a manager will use the space they have to divert from rules and regulations to adapt the practice of their job to what they feel is more appropriate (Shepsle and Bonchek 1997), I expect that the amount of non-compliance with rules and regulations is higher among private companies.

This assumption is strengthened by the idea that not only the managers preferences might differ more form the rules and regulations, but also the larger distance to the supervising authority that private managers have. Due to this distance, the private manager has more freedom to execute the task of waste management as he sees fit. Furthermore, if we assume, as is done for the third hypothesis, that public managers are more aware of the details of rules and regulations, this understanding alone makes it more likely that they comply with those rules and regulations. Finally, there is a fourth reason why private managers would be less compliant with the rules and regulations: their employees feel involvement with the goals of their organization. (NVRD 2010). This is a controversial conclusion though, because Boyne (2002) found the exact opposite in his study about the difference between public and private organizations. One of the hypotheses he confirmed stated that public managers "have weaker organizational commitment than their private sector counterparts" (ibid pp:98). If it is indeed the case that public managers have a higher commitment to the cause of their organization, they are likely to comply more with the rules and regulations that state their responsibility and the goals of their work than private managers and vice versa. By looking at this hypothesis, we can determine how much compliance there is in practice.

Hypothesis 4: Public managers will be more compliant with the rules and regulations set by government.

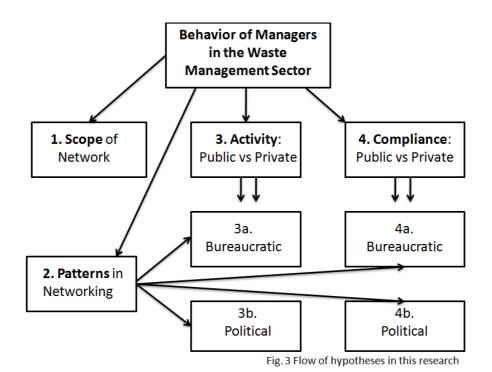
Apart from the question if either public or private managers are more compliant with rules, I will also look at the difference in rule compliance between managers who invest more in bureaucratic support and managers who invest more in political support, based on the results of the second hypothesis. I expect there to be a significant difference between the two. Managers who invest more in network actors to help with bureaucratic coping will most likely be more compliant with rules, as their network activity is aimed at implementing the rules and regulations they have to comply with. Politically oriented networkers however will be less compliant, because they are aiming to adapt and influence policies and

thus are likely to have practices or goals that differ more from the rules and regulations than managers who do not invest in their political network as actively.

Hypothesis 4a: Managers who invest more in bureaucratic ties are more compliant with rules and regulations.

Hypothesis 4b: Managers who invest more in political ties are less compliant with rules and regulations set by government.

Hence, in total there are eight hypotheses in this research, many of which are interconnected. In figure 3 I have schematically illustrated the flow of the hypotheses using arrows to illustrate their mutual relations:



Looking into the flow of hypotheses one step further, we see the following connections and predictions between the variables in this research (figure 4). Each arrow starts at the explanatory variable and ends at the dependent variable. A plus means that the explanatory variable has a positive effect on the dependent variable and a minus means it has a negative effect.

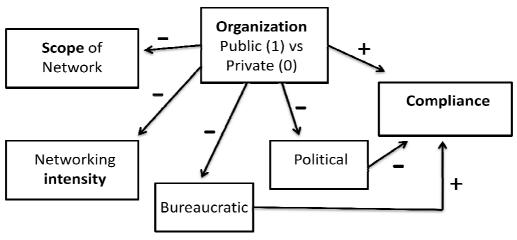


Fig. 4 Flow of variables in this research

#### Research design and data

The survey design

To test the hypothesis, I have created a new dataset about the network behavior of managers in the waste management sector by disseminating a survey among the managers – or 'directors' – in the sector. The survey is also included in this paper as an appendix. As mentioned earlier, this research builds upon and is largely similar to the research of Akkerman et.al. (2010) concerning managers of public schools. To be able to apply the same type of research to the waste management sector, I carried out a qualitative research in the field. This consisted of researching policy documents from the NVRD and the aforementioned interviews with professionals in the field. In total, I carried out five interviews: one with a manager from a small municipality, one from a large municipality and one from a large joint structure or public company responsible for several municipalities, as well as two experts from NVRD.

In the context of the quantitative research, the survey was published online for 12 days and sent to a panel of 122 directors of waste management organizations, who were also sent a reminder after a week to fill out the survey. The names and addresses of the panel were provided by the NVRD and they cover the sector almost completely. 55 of the 122 members of the panel responded (45%). This is a high percentage, compared to other similar studies, although the N is not very large. The respondents who answered the question about their organizational form, which is also the explanatory variable in this research, were distributed as follows:

Internal: 24 (52%)

Joint Structure: 21 (45%)

Private organization: 1 (2%)

As becomes clear from the numbers, the amount of internal services is roughly the same as all the other forms together. Therefore, I have made the choice to cut the group into two: Internal service and all the other forms. Otherwise, this dataset would not have enough statistical power to draw reliable conclusions. The results are therefore somewhat weakened, because the full distance between public and private cannot be researched independently. However, it is to be expected that, would there be a significant difference between internal services and private organizations, it would also show within the gradual steps in between.

#### Dependent variables

The survey used by Akkerman and Torenvlied (2010) served as a blueprint for the survey used in this study. Similarly to theirs, this survey has incorporated a list of 41 organizations that managers in the waste management sector have contact with. This list was created after consultation with experts in the field. The frequency of interaction with these network actors was measured on a five-point scale: Daily (4); Weekly (3); Monthly (2); Yearly (1); Never (0). Additionally, the respondents were asked to indicate who *usually* initiates the contact between the two: The managers themselves (3); Equally distributed (2); The other person/organization (1). For the second part of the central question, a question about compliance with rules and regulations was included. Apart from these questions, the respondents were asked about red tape, discretion, motivation and their opinion about organizational form and public private partnership.

#### Answering the hypotheses

The first hypothesis will be answered using one indicator, namely the number of actors in the network of the manager. The respondents are split up into the two aforementioned groups: "internal service" on the one hand and all the others pooled together in the other. By using a ranksum of all contacts, I will be able to see if there is a significant difference between the two.

The second hypothesis will be answered using a comparable method as Akkerman and Torenvlied (2010) used. This takes two steps. Firstly, a distinction has to be made between bureaucratic and political network actors. These actors will be pooled together in one scale and would then represent the group of network actors that give bureaucratic/political support. Secondly, the validity of these scales has to be tested by looking at the actual contacts of the managers.

For the first step, I have created the scales by looking at the qualitative data generated by the interviews. Out of the 41 network actors that were listed in the survey, 7 provide bureaucratic support and 10 provide political support. To calculate the intensity of bureaucratic networking, firstly the frequency of interaction with each network actor is singled out as an item on a scale. Afterwards, the sum of all the contacts with the actors in the bureaucratic scale was divided by the number of actors in the bureaucratic scale (7). The same was done for the political scale. The homogeneity of the scales was determined by information from the qualitative research on the one hand and a non-parametric item response technique called Mokken Scaling Analysis (Mokken 1971, Molenaar 2000) on the other.

The scale that shows the intensity of bureaucratic networking – hereafter 'the bureaucratic scale' – consists of the following 7 actors: Agentschap NL (the Executive agency of the Ministries of Housing, Spatial Planning and Environment (VROM) and the Ministry of Economic Affairs (EZ)), Policymakers of neighboring municipalities, Civil Servants of the Provincial Government, Civil Servants of the Municipality and Other Municipal Services, Other public waste management organizations and Other private waste management organizations. These seven network actors can provide information about rules and regulations and/or share best practices of waste management within these rules and regulations.

The scale that shows the intensity of political networking – hereafter 'the political scale' – consists of 10 actors: the Ministry of Housing, Spatial Planning and Environment (VROM), the Ministry of Economic Affairs (EZ), VNG (the Assemblee of Dutch municipalities), the sector umbrella organization NVRD, Members of Parliament, Executives of the Provincial Government, Aldermen, the City Council, Regional Media and Local Media. The first 8 actors all have positions in which they are able to influence policies and rules and regulations. The media are included because the qualitative research shows that the support of the local population is very important to get things done as a waste management organization. When something goes wrong with waste management, people tend to complain and when the media report about it, it damages the organizations' image. As one of the interviewed managers stated: "When the media know me, they will call me first, so I can explain what is going on and possibly prevent the bad publicity." Therefore, maintaining good ties with the media is considered instrumental to the organization.

Hypothesis three will be answered by looking at the sum of all the frequencies of contact with all actors in the network of the managers. The more contact, the more active the manager is. For this indicator, a distinction will be made between the internal services and the other forms of organization. For hypothesis 3a and 3b, a distinction will be made between the forms of organizations again. Then I will look at the question whether public or private managers are more inclined to be active in bureaucratic or political network management.

Hypothesis four will be answered using the abovementioned explanatory variable. The survey included a question about how the manager deals with rules and regulations from the government. The answers to this question form the sole source of data for testing this hypothesis and I will look at the differences between the internal services and others form of organization. For hypothesis 4a and 4b, the same mechanism as for 3a and 3b will be used. I will look at the difference in compliance between 'bureaucratic' and 'political' managers.

#### **Results**

In this paragraph, I will answer the hypothesis formulated above, using the dataset from the survey among the managers in the Dutch waste management sector. Among the respondents, there were 22 waste management organizations of the type "non internal service", and 20 waste management organizations of the "internal service". Seeing that the low N has necessitated the creation of a dichotomous scale of 'public' and 'non-public' organizations, the hypotheses will be altered to fit the

statistical analysis used to test it. For every section, I will firstly introduce the adapted hypothesis and then the results of the analysis.

Scope of the network of managers in the waste management sector

Hypothesis 1: The managers of public waste management organizations have a higher number of actors in their network than do managers of non-public waste management organizations.

The mean of the total number of actors in the network of the manager is 25.85 ( $\sigma$ = 4.49) for internal services and 28.05 ( $\sigma$  = 4.11) for all others. Public managers thus appear to have a smaller network than more private managers have. The two-sample t-test shows that the difference in means is almost significant at the p < .05 level: (t = 1.65; p = 0.05). The Mann-Whitney U-test (which is a non-parametric test and therefore more suitable for small samples) shows that the difference is not significant at p < 0.05 (z = 1.71; p = 0.09). Hence, there is support of hypothesis 1 in the data, although the evidence is at the brink of statistical significance.

Differentiation in the network behavior of managers in the waste management sector

Hypothesis 2: Managers of waste management organizations differentiate in their networking behavior between political and bureaucratic support.

As mentioned before, for this hypothesis I have clustered a group of network actors that form both the *bureaucratic* and *political* scale. Table 1 shows these scales, the networks actors comprising them, their reliability (Cronbachs alpha) and their 'strength' (h-value), using a Mokken scale analysis:

Table 1. Network actors in the *Bureaucratic* and *Political* scales.

Scale	Bureaucratic Act	tors	Political Actors		
Actors	Agentschap NL N		Ministry VROM		
	Neighboring municipalities M		Ministry EZ		
	Provincial civil servants		VNG		
	Municipal civil servants		NVRD		
	Other municipal services		MP's		
	Other public waste manag	ers	Provincial executives		
	Other private waste mana	gers	Aldermen		
	-		City council		
	-		Local media		
	-		Regional media		
Cronbachs		0.63		0.64	
alpha					
h-value		0.13		0.18	

Although both scales have a sufficient reliability, with Cronbachs alphas of 0.63 and 0.64, they both did not turn out to be significant. The items in the bureaucratic scale together have a very low h-value of 0.13; the h-value of the political scale is 0.18. Hence, hypothesis 2 must be rejected. However, a more exploratory analysis shows that there are other scales to be derived from the data, which will be detailed below.

#### 1. Supra-local support scale

The first scale that came from the further analysis of the data is what I will call the 'super-local' scale. It came from analyzing a group of external organization within the political scale. The Cronbachs Alpha reliability coefficient of this scale is 0.76 and the h-value (Mokken Scale analysis) is 0.58, making it a significant scale. The network actors in this scale are: Ministry of Housing, Spatial Planning and Environment (VROM), Ministry of Economic Affairs (EZ), Members of Parliament and Provincial executives. The scale therefore represents those organizations that managers of waste management organizations seem to turn to for their lobbying activities.

#### 2. Municipal support scale

The second scale, which I will call the 'municipal' scale, came from a combination of two network actors from the bureaucratic scale that seemed to interact heavily and two network actors from the political scale that were interacting similarly. It has a Cronbachs Alpha scale reliability coefficient of 0.86 and a h-value of 0.78 making it a very strong and significant scale. The actors in this scale are: Municipal civil servants, City Council, Aldermen and Other municipal services. This scale makes sense, because it consists of network actors that operate on the same level and the amount of contact with these network actors is high. This cluster of network actors is probably where the respondents turn to for daily matters and local affairs.

#### 3. Peer support scale

The third and final scale of network actors that came from the further research is what I will call the 'peer support' scale. This scale also came from a combination of network actors from the bureaucratic and the political scale. The Cronbachs Alpha reliability coefficient for this scale is 0.64 and it has an acceptable h-value of 0.46 making it a significant scale. It consists of NVRD, other public waste management organizations and other private waste management organizations. The existence of this scale indicates that managers of waste management organizations show a pattern of turning to peers (which they also encounter via the NVRD) in their networking behavior. The new, significant scales have been summarized in table 2.

Table 2. The significant scales in the network behavior of managers in the waste management sector.

Scale :	Supra-local		Municipal		Peer Support		
Actors :	Ministry VROM		Municipal civil servants		NVRD		
	Ministry EZ		City Council		Other public waste		
			r		management organization	ns	
	MP's		Aldermen		Other private waste		
					management organizations		
	Provincial executives		Other municipal services		-		
Cronbachs:		0.76		0.86		0.64	
alpha							
h-value:		0.58		0.78		0.46	

Intensity of the network behavior of managers in the waste management sector.

Hypothesis 3: The managers of public waste management organizations maintain more frequent contacts with external organizations than do managers of non-public waste management organizations.

This hypothesis was tested by looking at the total amount of contact between the managers and the network organizations listed in the survey. The scores of the two categories of organizational form differ slightly: The internal services have a slightly lower mean score of 46.86 ( $\sigma$ = 11.33), while the non-public organizations show a mean score of 48.2 ( $\sigma$ = 10.87). A T-test produces a t of -0.39 with a p-value of 0.70, which is not nearly significant. An additional Mann-Whitney test also provides a probability of 0.70, which indicates that the results are not significant. Therefore, hypothesis 3 must be rejected.

There is, however, a high correlation of 0.75 between the intensity of the networking behavior of the managers and the scope of their network. This is surprising, because the results of hypothesis 1 about the scope of the managers showed a difference between the scope of the network of public and non-public managers that was on the brink of being significant. Figure 5 shows the reason for this seemingly illogical correlation: the relationship between 'scope' and 'total' (intensity) is non linear, as is incline decreases towards the upper-right corner.

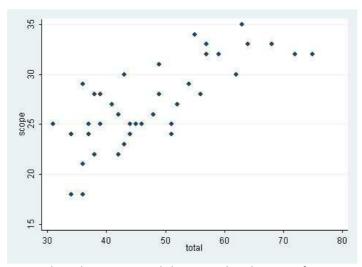


Figure 5. Correlation between network diversity and total amount of contact.

Aside from the intensity of contact with the network actors altogether, I will also look into the intensity of networking with the actors in the political and bureaucratic scales. Even though these scales were weak and not significant, they were reliable scales (with both Cronbachs alphas being above 0.6) and there can still be a difference in the amount of energy invested in them between the public organizations and the non-public forms of waste management organizations.

Hypothesis 3a: The managers of public waste management organizations maintain more frequent contacts with bureaucratic network actors than do managers of non-public waste management organizations.

The mean bureaucratic networking activity of the internal service waste management organizations is 2.02 ( $\sigma$  = 0.42); bureaucratic networking activity of the non-internal service waste management organizations is 1.67 ( $\sigma$  = 0.37). This difference is significant at p < 0.005 (t=-2.89). A non-parametric Mann-Whitney U-test shows a similar result (z = -2.69; p < 0.01). Hence, waste management organizations that are internal services are significantly more active bureaucratic networkers. This means we can confirm hypothesis 3a.

Hypothesis 3b: The managers of public waste management organizations maintain more frequent contacts with political network actors than do managers of non-public waste management organizations.

The mean political networking activity of the internal service waste management organizations is 1.21 ( $\sigma$  = 0.31); bureaucratic networking activity of the non-internal service waste management organizations is 1.30 ( $\sigma$  = 0.36). This is not significant (t= 0.84). The Mann-Whitney U-test shows a similar result (z = 0.95; p= 0.34). Therefore, I conclude that there is no significant difference between waste management organizations with differences on the scale of publicness on their political networking activity and hypothesis 3b can be rejected.

We can, however, doubt the practical relevance of confirming this hypothesis, seeing that the managers themselves do not use the pre-designed bureaucratic and political scales as significant patterns in their networking behavior. Through the exploratory analysis in the previous paragraph, I did, however, find three significant scales: Supra-local, Municipal and Peer Support. I will now look at the differences in networking activity in these scales between the internal services and the others, using alternative hypotheses that will be introduced per scale.

#### 1. Supra-local

Alternative hypothesis 3.1: The managers of public waste management organizations maintain less frequent contacts with supra-local network actors than do managers of non-public waste management organizations.

The mean supra-local networking activity of the internal service waste management organizations is 0.35 ( $\sigma$  = 0.33); supra-local networking activity of the non-internal service waste management organizations is 0.64 ( $\sigma$  = 0.58). This difference is significant at p < 0.01 (t= 1.94). The Mann-Whitney Utest shows a nearly similar result (z = 1.57; p = 0.12). Thus we can conclude: The more private the waste management organizations, the more contact the manager has with *supra-local* actors and alternative hypothesis 3.1 can be approved.

#### 2. Municipal

Alternative hypothesis 3.2: The managers of public waste management organizations maintain more frequent contacts with municipal network actors than do managers of non-public waste management organizations.

The mean municipal networking activity of the internal service waste management organizations is 3.08 ( $\sigma$  = 0.35); municipal networking activity of the non-internal service waste management organizations is 1.85 ( $\sigma$  = 0.61). This difference is significant at p < 0.01 (t=-7.81). The Mann-Whitney U-test shows a similar result (z = -5.24; p < 0.01). Hence, waste management organizations that are internal services are significantly more active bureaucratic networkers. Thus, we can conclude without doubts that the more public the waste management organization, the more contact the manager has with *municipal* actors and confirm alternative hypothesis 3.2.

#### 3. Peer support

Alternative hypothesis 3.3: The managers of public waste management organizations maintain less frequent contacts with network actors in the peer support scale than do managers of non-public waste management organizations.

The mean peer support networking activity of the internal service waste management organizations is 1.59 ( $\sigma = 0.59$ ); municipal networking activity of the non-internal service waste management organizations is 2.03 ( $\sigma = 0.52$ ). This difference is almost significant at p < 0.01 (t=2.60). The Mann-Whitney U-test shows a similar result (z = 2.60; p < 0.01). Thus, the more private the waste management

organization, the more contact the manager has with *peer support* actors and confirm alternative hypothesis 3.3.

#### Compliance with rules and regulations in the waste management sector

This paragraph will deal with the last theory in this paper, namely the compliance with rules and regulations. For this paragraph, the most suitable way to report the results of the statistical analysis is to present all of the answers to the hypotheses together. For that reason I will firstly present all the hypotheses *and* the alternative hypotheses<sup>6</sup>, based on the exploratory analysis of the data, together:

Hypothesis 4: The managers of public waste management organizations are more compliant with rules and regulations than managers of non-public waste management organizations.

Hypothesis 4a: *Managers who invest more in bureaucratic network actors will be more compliant with rules and regulations.* 

Hypothesis 4b: Managers who invest more in political network actors will be less compliant with rules and regulations.

Alternative hypothesis 4.1: *Managers who invest more in supra-local network actors will be less compliant with rules and regulations.* 

Alternative hypothesis 4.2: *Managers who invest more in municipal network actors will be more compliant with rules and regulations.* 

Alternative hypothesis 4.3: *Managers who invest more in peer support network actors will be more compliant with rules and regulations.* 

The section about compliance in the survey had one central question: "How do you deal with rules and regulations set by the government of the city council?", and was then divided into four questions (A, B, C and D). For this section, the N was lowered to 39, with 19 public organizations and 20 non-public organizations. The answers to these four questions formed neither a reliable, nor a significant scale, with a Cronbachs alpha of 0.36 and a very low h-value of 0.21. For that reason, I will analyze the responses to each question separately. Therefore, I will firstly look at the answers to the four questions to see if they have produced scores that are relevant to look at. Below are the graphs of the distribution of answers to the questions (figure 6):

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<sup>&</sup>lt;sup>6</sup> The alternative hypotheses are formulated according to the expectation I had for the organizational form that they significantly represent. E.g. non-public managers invest more in supra-local actors and were expected to comply less with rules and regulations and therefore alternative hypothesis 4.1 will follow suit.

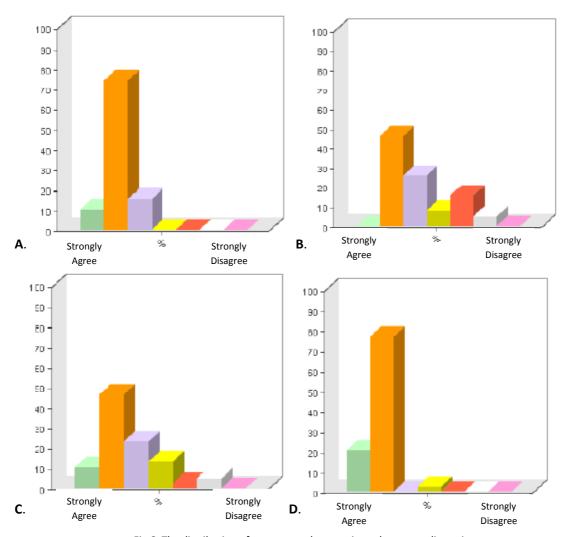


Fig 6. The distribution of answers to the questions about compliance in percentages.

From the images in figure 6, it becomes clear that questions A and D provide very little variety in the scores of the managers and are not likely to produce significant results. Therefore, I will not report on A and D in this chapter. Below, I will firstly show the results for questions B and C on all the hypotheses and the implications they have for the hypotheses afterwards.

Table 3 provides an overview of the effects of publicness (hypothesis 4), in combination with the effect of networking strategy (hypotheses 4a, 4b, alternative hypotheses 4.1, 4.2 and 4.3) on their answers to question B: 'I accept such measures and carry them out fully, even when they are not in my organizations best interest':

Table 3. Results of OLS regression of level of compliance on question B: 'acceptance of measures, even when they go against the interest of the organization' (unstandardized coefficients; standard error between parentheses).

В	Bureaucratic	Political	Supra-Local	Municipal	Peer Support
4. Organization	0.49	0.77*	0.82*	1.13*	1.12**
form (public = 1)	(0.43)	(0.41)	(0.42)	(0.64)	(0.39))
4a. Bureaucratic	0.76				
	(0.49)				
4b. Political		0.05			
		(0.60)			
4.1 Supra-local			0.20		
			(0.42)		
4.2 Municipal				-0.30	
				(0.40)	
4.3 Peer Support					0.86**
					(0.33)
R2	0.15	0.09	0.10	0.10	0.24
N	39	39	39	39	39

<sup>\*</sup> p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01

Table 4 provides an overview of the effects of publicness (hypothesis 4), in combination with the effect of networking strategy (hypotheses 4a, 4b and alternative hypotheses 4.1, 4.2 and 4.3) on their answers to question C: *'When there is room to divert from rules and regulations, I will'*:

Table 4. Results of OLS regression of level of compliance on question C: 'diverting when there is the possibility to do so' (unstandardized coefficients; standard error between parentheses).

С	Bureaucratic	Political	Supra-Local	Municipal	Peer Support
4. Organization	-0.31	-0.15	-0.26	-1.20*	-0.21
form (public = 1)	(0.49)	(0.40)	(0.41)	(0.60)	(0.43)
4a. Bureaucratic	0.47				
	(0.50)				
4b. Political		-0.21			
		(0.59)			
4.1 Supra-local			-0.43		
			(0.41)		
4.2 Municipal				0.85**	
				(0.38)	
4.3 Peer Support					-0.17
					(0.36)
R2	0.03	0.01	0.03	0.13	0.01
N	39	39	39	39	39

<sup>\*</sup> p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01

The regression analyses in table 3 and 4 did not produce significant results on three of the six hypotheses: 4a, 4b and alternative hypothesis 4.1. Hence, there is no significant effect between compliance with rules and regulations and the intensity of bureaucratic, political or supra-local networking behavior of managers in the waste management sector. This means that hypothesis 4a, 4b and alternative hypothesis 4.1 must be rejected on the basis of the available data.

Both table 3 and table 4 produced show significant results with regards to hypothesis 4 about the difference between public and non-public managers. Managers of public organizations score significantly higher on question B and lower on question C (though less convincingly so), when controlling for the effect of (most of) the networking variables. This means that there is a significant positive relationship between the publicness of the waste management organization and the level of compliance of its manager with rules and regulations. Hence, and hypothesis 4 is confirmed by the data.

Table 3 shows a significant effect of the intensity of contact with peer support network actors on compliance. Managers with an active peer support networking strategy significantly more accept measures. Hence, alternative hypothesis 4.3 is confirmed for the compliance item about the acceptance of measures. The effect of peer support on diverting when possible, as reported in table 4, is in the expected direction, but not significant.

Table 4 shows a significant effect of the intensity of contact with municipal network actors on compliance, as measured in terms of diverting from rules. Managers with an active municipal networking strategy score significantly lower on the rule diverting item of compliance. Hence, the networking activity with municipal actors positively and significantly affects compliance, which corroborates alternative hypothesis 4.2.

#### **Discussion and Conclusion**

The purpose of this paper was to provide empirical data to expand the knowledge about external networking management and to examine the possible differences between organizations with different levels of *publicness*. Additionally, I sought to apply these themes to the practical concept of compliance with rules and regulations, by looking at the link between organizational form and compliance and networking strategy and compliance. To answer these questions, I have chosen to look at the waste management sector in the Netherlands. After a first phase of qualitative research and literature study, I created a survey which was sent to all the managers of waste management organizations in the Netherlands. Among the respondents were managers of organizations with three different levels of *publicness* which were then pooled into two groups to form a dichotomous scale and test a total of 4 main and 4 sub-hypotheses.

This study showed, in the first place, that the networks of managers of public organizations have a more limited scope than the networks of managers of private organizations. This result was expected and it implies that non-public organizations probably have more potential to innovate than public organizations, given the fact that they have ties with a broader scope of network actors. Following the

notions of bridging ties and environmental buffering introduced earlier in this paper, this diversity potentially also increases the performance of the organizations.

The second conclusion I can draw is that managers differentiate in their external networking strategy. I formulated two possible groups of network actors, or *scales*, namely a bureaucratic and a political networking scale. Neither if the two appeared to be significant. Seeing that these scales were significant for the education sector (Akkerman and Torenvlied 2009), this indicates that every sector has its own set of patterns and scales in their external networking behavior. However, from the statistical analysis followed three other relevant scales that were in fact significant: the *supra-local* scale, the *municipal* scale and the *peer support* scale. Hence, managers of waste management organizations do differentiate in their external networking choices. The existence of those scales is interesting, seeing that it represents which network actors managers in the waste management sector turn to for certain types of support. When introducing and implementing new policies in this sector, this information can be valuable, because these patterns can be used to gain or disseminate important information. Moreover, for individual organizations, it can mean they need to rethink their role in the total network of the waste management sector, as they might not have expected to be (not) in the relevant support scales.

Thirdly this paper looked at the intensity of networking behavior in the waste management sector, i.e. the total amount of contacts with external organizations and applied the central question about differences between organizations with different levels of publicness to the practice of differentiation in the external networking behavior of the managers. There was no significant difference between publicness of the waste management organizations and the intensity of their networking behavior, which was not what I expected. There were, however, differences in networking intensity based on particular scales. Managers of waste management organizations that are internal services are likely to invest more in network actors on the bureaucratic and the municipal scale and managers of non-public waste management organizations are more likely to invest in supra-local and peer support network actors. There is no significant difference between the forms of organizations on the political scale. These different patterns have implications for the understanding of networking behavior in the waste management sector. To be able to effectively reach or influence a given waste management organization, one has to understand the network actors it uses to gather information and realize what type or pattern of network actors they deem relevant. Furthermore, it is interesting to see significant differences between organizations that have the same core business and work under the same law, but have different institutional forms and thus different levels of publicness. Earlier research (Meier, O'Toole and Hicklin 2009) had not found relevant differences in the educational sector, which might be explained by the fact that publicness has different effects on managerial external networking behavior in each sector.

The fourth concept this paper analyzed was the compliance of the managers of waste management organizations with rules and regulations. There were two angles from which this issue was looked at: publicness and pattern in networking behavior. The data showed that publicness was a relevant variable and that public organizations in the waste management industries tend to be more compliant with rules and regulations than their non-public counterparts. The data for the differentiated networking strategies was less convincing, however it did suggest that managers with a *municipal* networking

strategy are more compliant and managers with a *peer support* networking strategy are less compliant, which was in line with the expectations, since public managers invest more in *municipal* network actors and non-public actors invest more in *peer support* actors. The data suggests that the more distance the organization has to the source of the rules and regulations, the more likely it is that they divert from them. The question of compliance is relevant for officials who design rules and regulations. The fact that managers tend to divert from these rules and regulations in practice has been proven already, though it is important to know that there is a different level of compliance between public and non-public organizations, for example for inspection and evaluation purposes, or when designing the legal framework in which the sector operates.

The conclusions of this research confirm some of the theories it dealt with, but raises questions about others. Specifically, the effects of publicness on managerial network behavior ought to be researched further, because the conclusions of this paper suggest more influence of this variable than was found in previous research. Further empirical data about the waste management sector, preferably with a larger N, is needed to further describe the behavior of managers in different organizational forms. Moreover, a study of the link between external networking and performance in the waste management sector would be relevant.

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## Appendix 1 - The Survey

# Vragenlijst

1. Wat is uw leeftijd?
2. Wat is uw geslacht?
3. Wat is uw hoogst voltooide opleiding?
□ Voortgezet onderwijs: (MAVO/HAVO)
□ Voortgezet onderwijs: (VWO/Cymnasium)
TI MBO
□ HBO
□ Universiteit
Hoe lang bent u al werkzaam in deze sector?
Hoe lang bent u al directeur van deze organisatie?
5. Not lang bent a an anestean van deze organisate :
Hoeveel uur per week besteedt u aan uw functie als directeur?
7. Heeft u nevenfuncties?
(Als u 'Nee' aanvinkt, kunt u vraag 8 en 9 overslaan en door naar de volgende pagina)
□ Ja
□ Nee
Zo ja: Zijn uw nevenfuncties afvalsector-gerelateerd?
O Ja
O Nee
O Nvt
Benoem uw nevenfuncties (maximaal 4).
4.
2:
3:
<u> 4:</u>
□ nvt
10. Hoeveel huishoudens bedient uw bedrijf/dienst?
11. In hoeveel gemeenten is uw bedrijf/dienst actief?
12. Wat is de stedelijkheid van de gemeente(n) die uw bedrijf/dienst bedient*?
Hoog= NVRD benchmark klasse A, Gemiddeld is B en Laag is C.
In termen van de stedelijkheidsindex geldt A (Hoog) is 1, B (Gemiddeld) is 2 en C (Laag) is 3, 4 en 5.

_	ш	-	-	~

- Gemiddeld
- Laag
- 13. Wat is de organisatievorm van uw afvalstoffenbedrijf?
- O Gemeentelijke dienst:
- O Gemeenschappelijke regeling
- Ö Verzelfstandigde overheidsvennootschap
- Privaat bedrijf
- 14. Met de volgende vraag willen wij een beeld krijgen van uw netwerk.

Hieronder staat een lijst van organisaties die te maken kunnen hebben met uw afvalstoffenbedrijf. Hoe vaak heeft u persoonlijk contact met per uit de volgende groepen? Het hoeft hierbij niet alleen om face?to?face contact te gaan. Het contact kan ook plaatsvinden via een medium, zoo telefoon, het internet, etc.

	Dagelijks	Wekelijks	Maandelijks	Jaarlijks	Nooit	Nvt
Landelijk						
1.Ministerie van VROM	Ö	Ö	Ö	Ö	Ō	Ō
2.Ministerie van Economische Zaken	0	0	0	0	0	0
3.Agentschap NL (voorheen Senter Novem)	0	0	0	0	0	0
4.VNG	0	0	0	0	0	0
5.NVRD	0	0	0	0	0	0
6. Vereniging Afvalbedrijven (VA)	0	0	0	0	0	0
7.Politieke Partijen	0	0	0	0	0	0
8.Kamerleden	0	Ō	0	0	Ō	ō
Regionaal						
10.Ambtenaren Provincie	0	0	0	0	0	0
11.Bestuurders Provincie	0	0	0	0	0	0
12.Waterschappen	O	0	0	0	0	0
13.Beleidsverantwoordelijken buurgemeenten	0	0	0	0	0	0
14.Regionale Media	0	0	0	0	0	0
Lokaal						
15.Wethouder	0	0	0	0	0	0
18.Gemeentenambtenaren	0	٥	٥	0	٥	O
17.Gemeenteraad	0	0	•	0	0	0
18.Deelgemeenten	0	0	0	0	0	0
19.Andere gemeentelijke diensten (plantsoen, zwerfafval, etc.)	О	0	0	0	0	0
20.Wijkplatforms	0	0	0	0	0	0
23.Woningcorporaties	0	0	0	0	0	0
24. Sociale werkvoorziening	0	0	0	0	0	0
25.Politie	0	0	0	0	0	0
26.Sicholen	0	0	0	0	0	0
27.Lokale media	0	0	0	0	0	0
Zakelijk						
28.Andere publieke afvalbedrijven	0	0	0	0	0	0
29.Andere private afvalbedrijven	0	0	0.	0	0	0
30.Afvalverwerkingsbedrijven en recyclingbedrijven	0	0	.0	0	0	0
31.Bedrijven (klanten) voor commercieel afval	-0	0	0	0	0	0
32.Vakbonden	0	0	0	0	0	0
33.Uitzendbureaus	0	0	0	0	0	0

34.Milieuorganisaties	10	0	0	C	0	0
35.Werkgeversorganisaties	С	C	0	0	0	C
36.BVOR	\C	(0)	0	10	0	0
37.Nedvang	С	C	0	0	0	C
38.BRBS	\C	(0)	0	10	0	(0)
39.NVMP	C	C	0	.0	0	C
Overig/Intern						
40.Partnergemeenten in het buitenland	C	O	O	0	O	0
41.Ondernemingsraad	0	0	0	10	0	.0

15. Deze vraag bouwt voort op de vorige vraag en zal dezelfde lijst met organisaties hanteren. Ditmaal kunt u aangeven wie meestal het contact initieert.
Mocht u geen contact hebben met deze organisatie, dan kunt u 'niet van toepassing' aanvinken.

	lkzelf	Gelijk verdeeld	De ander	nvt
Landelijk				
1.Ministerie van VROM	0	C	10	0
2.Ministerie van Economische Zaken	\ C	10	<b>*</b> C	0
3.Agentschap NL (voorheen Senter Novem)	0	C	(O)	0
4.VNG	10	10	10	C
5.NVRD	0	C	(O)	0
6. Vereniging Afvalbedrijven (VA)	\\C	30	10	C
7.Politieke partijen	0	C	(O)	0
8.Kamerleden	C	10	10	0
Regionaal				
10.Ambtenaren Provincie	C	10	10	C
11.Bestuurders Provincie	0	0	(O)	0
12.Waterschappen	\C	10	10	0
13.Beleidsverantwoordelijken buurgemeenten	0	0	10	0
14.Regionale media	10	10	10	C.
Lokaal				
15.Wethouder	VO	100	<b>10</b>	C
16.Gemeenteambtenaren	100	C	10	0
17.Gemeenteraad	VO	300	10	C
18.Deelgemeenten	0	C	(O)	0
20.Andere gemeentelijke diensten (plantsoen, zwerfafval, etc.)	Ó	6	o	Ö
21.Wijkplatforms	0	0	0	0
23.Woningbouwcorporaties	0	0	10	0
24.Sociale werkvoorziening	0.	0	C	0
25.Politie	0	0	-0	0
26.Scholen	0	0	0	0
27.Lokale media	0	0	0	0
Zakelijk				
28.Andere publieke afvalbedrijven	0	0	0	0
29.Andere private afvalbedrijven	0	c	c	0
30. Afvalverwerkingsbedrijven en recyclingbedrijven	0	0	0	0
31.Bedrijven (klanten) voor commercieel afval	0.	0	0	0
32.Vakbonden	0	0	0	0
33.Uitzendbureaus	0	c	0	0
34. Milieuorganisaties	0	0	0	0
35.Werkgeversorganisaties	0	c	0	0
36.BVOR	Ö	0	· C	0
37.Nedvang	0	0	0	0

38.	BRBS	0	0	0	0
39.	NVMP	0	0	0	0
Ov	erig/Intern				
40.	Partnergemeenten in het buitenland	0	0	0	0
41.	Ondernemingsraad	0	0	0	0
0	Heeft uw bedrijf een raad van commissarissen? (Als u 'Nee' aanvinkt, kunt u vraag 17, 18 en 19 ov Ja Nee	erslaan en doo	or naar de vok	gende pagina	)
0	Nee				
17.	Zo ja: zetten deze commissarissen hun netwerk in	de praktijk in v	voor uw bedrij	f?	
0	Ja				
0	Nee				
0	Nvt				
18.	Zijn deze commissarissen geselecteerd op hun de	skundigheid?			
$\circ$	Ja				
$\circ$	Nee				
0	Nvt				
19.	Zijn deze commissarissen geselecteerd op hun ne	twerk?			
0	Ja				
9	Nee				
0	Nvt				
20.	Dit onderdeel gaat over uw beleving van een aanta	al aspecten var	n uw werkzaa	mheden.	

	Sterk eens	Eens	Meer eens dan oneens	Noch eens, noch oneens	Meer oneens dan eens	Cneens	Sterk oneens
lk schakel mijn netwerk veelvuldig in voorhulp bij mijn werkzaamheden.	0	0	0	0	o	•	0
Het netwerk van de directeur is van groot belang voor het functioneren van een afvalstoffenbedrijf	0	0	0	0	0	0	0

21. De volgende vragen gaan over de organisatievorm van afvalstoffenbedrijven.

Werkt uw publieke bedrijf ook samen met private bedrijven?

De volgende vragen gaan over het belang van uw netwerk:

- O Ja
- Nee
- O nvt

22. Vervolg van de vragen over de organisatievorm van afvalstoffenbedrijven

	Sterk eens	Eens	Meer eens dan oneens	Noch eens, noch oneens	Meer oneens dan eens	Cneens	Sterk oneens
Publiek-private samenwerking is goed voor het netwerk van de publieke organisatie	0	0	c	•	0	0	0
Publieke dienstverlening is de beste manier van het organiserer van afvalstoffenbedrijven	0	0	0	0	0	0	0
Samenwerking met de private sector is de beste manier van het organiseren van afvalstoffenbedrijven	0	0	C.	c	ō	0	n
Samenwerking met private bedrijven is efficiënter dan	O	- 0	C	0	0	0	- 0

wanneer de dienst uitsluitend	door	de overhe	id
georganiseerd wordt			

Bij publieke afvalstoffenbedrijven staal de kwaliteit van het werk voorop	O	6	0	Ö	0	0	0
Bij private afvalstoffenbedrijven staat het maken van winst voorop	0	5	0	0	0	0	0

23. De volgende vraag gaat over de manier waarop u uw eigen werkzaamheden verricht.

Hoe ervaart u de mogelijkheden om zelf uw werkzaamheden te bepalen?

	Sterk eens	Eens	Meer eens dan oncens	Noch eens. noch oncens	Meer oneens dan eens	Oncens	Sterk oncens
lk ben vrij om te bepalen op welke manier ik mijn werk uitvoer	o	۰	۰	۰	0	o	•
lk kan zelt mijn werkzaamheden plannen	0	0	0	0	0	0	0
lk kan zelf de oriteria waarop mijn bedrijfidienst beoordeeld wordt aanpassen	O	0	C	Ö	0	0	c
lk kan zelf invulling geven aan de eisen die aan mij worden gesteld	0	5	C	0	0	c	c
Ik heb controle over datgene wat ik moet doen	0	0	Ö	9	0	0	0

24. Hoe gaat u om met maatregelen en voorschriften van de overheid en de gemeente(raad)?

	Sterk eens	Eens	Meer eens dan oneens	Noch eens, noch oneens	Meer oneens dan eens	Oneens	Sterk oneens
k voer dergelijke maatregelen en voorschriften zeer nauwkeung uit	O	ō	6	Ö	O	0	0
k accepteer dergelijke maatregelen en voorschriften en roer deze volledig uit, ook wanneer zij ingaan tegen het belang van mijn eigen dienst/bedrijf	0	5	O	o	O	o	0
Als er ruimte is om af te wijken van een voorschrift of naatregel ten gunste van mijn eigen denst/bedrijt, dan doe k dit	0	6	0	ě	ò	ō	ō
Over het algemeen handel ik in overeenstemming met de bedoeling van degelijke maatregelen en voorschriften	0	٦	0	0	0	n	0

25.	Als bureaucratie wordt omschreven als: "lastige administratieve regels en procedures die het functioneren van uw afvalstoffenbedrijf negatiet
	beïnvloeden", in hoeverre heeft u dan te maken met bureaucratie?

Geef een cijfer tussen de 1 en de 10, waarbij 1 is: totaal geen bureaucratie, en 10: alleen maar bureaucratie.

A
w.

 Geef een ranglijst van maximaal 5 regels waarbij u op 1 de regel en/of procedure plaatst waar u het meeste last van heeft. Geef daarnaast aan door wie de bureaucratie geïnitieerd wordt.

	Maali egel	Landelijk (Geïnitieerd door de overheid)	Lokaal (Geïnitieerd door gemeente/RvC)
1:		0	•
2.		0	0
3:		0	0
4:		0	0
5:		0	0