

THE NEXUS BETWEEN AGENCIFICATION AND HORIZONTAL ACCOUNTABILITY: A MULTI-COUNTRY SURVEY ANALYSIS

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Abstract

Accountability to political principals, stakeholders and citizens is a major issue in the literature on structurally disaggregated autonomous agencies. There are numerous accounts in the literature which claim that the need for independence of agencies reduces the ability of political principals to hold it and its leadership accountable for actions. However, next to traditional vertical accountability instruments (e.g., monitoring and evaluation of the organization or senior management), 'alternatives' such as horizontal ways of holding agencies accountable exist. Using multi-country survey data, this article explores how managerial autonomy affects the existence and use of such accountability mechanisms.

Keywords: agencies, horizontal accountability mechanisms, managerial autonomy.

1. Introduction

Over the last 20 years, several public service organizations have been granted substantial formal and operational autonomy in numerous OECD-countries. In line with the literature (e.g., Pollitt *et al.*, 2004) we will refer to this process as agencification. Crucial to this process is that public sector organizations are placed outside of traditional, departmental hierarchies. One of the major concerns however is whether political principals, the product of democratic election, are able to control properly these organizations and to make sure that they follow the public agenda. If not, one can worry that this structure might enact mandatory regulations which the citizens cannot influence, but have to obey (Christensen and Lægreid, 2007). Ministerial responsibility, although still a cornerstone for accountability, can indeed have a number of shortcomings when applied to autonomous public sector organizations. As discussed by Schillemans (2008) one such shortcoming is the fact that the assessment of the quality of services can be hardly transported through democratic processes. Moreover, the focus of ministerial oversight tends to be limited to political priorities and risks. A second important shortcoming is the fact that the growth in size and complexity of present-day public administration has led to fragmented practices of control and administration that are ill-adapted to hierarchical models of accountability, making the doctrine of ministerial responsibility less and less applicable.

As a way to overcome these deficiencies in traditional vertical accountability relations, several authors (e.g., Bovens, 2005; Schillemans, 2011) point at new forms of accountability, making the accountability regime of public organizations more and more divers. However, also other shifts in accountability have been detected, such as forms of accountability that are directed towards third parties, outside of the primary principal-agent relationship. The rise of these additional mechanisms of accountability has been described in different ways; many authors have coined these kinds of accountability mechanisms as 'horizontal' forms of accountability (Bovens, 2005; Schillemans, 2011). These forms of accountability do not directly address the political principals of agencies but aim at significant stakeholders such as clients (Pollitt, 2003), professional peers (Thatcher and Stone Sweet, 2002), the use of systems of quality control and risk assessment (Aucoin and Heintzman, 2000), codes of conduct (Flinders, 2001), and exit and voice (Meijer and Schillemans, 2009). However, it remains unclear to what extent such alternative accountability mechanisms are really effective (Schillemans, 2008). Yet, the idea that representative government requires accountability to the general public is a core value of democracy and thus public administration. Pollitt (2008) even claims that 'almost everyone, it seems, is agreed that *accountability* is a *good thing*, that is fundamental to liberal democracy and that we need more of.'

The goal of this article is to examine whether managerial autonomy can be considered a key factor for explaining the existence and use of horizontal accountability mechanism or the absence (or presence) of vertical accountability mechanisms. Managerial autonomy is likely to be a pull-factor towards horizontal accountability, giving

managers the leeway to devise additional accountability mechanisms. The absence of vertical accountability mechanisms on the other hand could signify a 'push' factor. Agencies will seek ways to be 'accountable', not because they enjoy being controlled but because they may be perceived as being important (Mill, 1962; Olsen, 2013). The remainder of this article is organized as follows. Section 2 discusses accountability into more detail and relates the concept to post-New Public Management (post-NPM) reforms and agencification. The used data are described in section 3. In the fourth part, we discuss the used methodology and results, offering a detailed insight on how horizontal accountability mechanisms relate to the level of de facto autonomy. The fifth part contains the conclusions.

2. Accountability, post-NPM and agencification

Although the concept of accountability is widely used in public administration, there exists no unanimity on the meaning of the concept (Brandsma and Schillemans, 2013; Behn, 2001; Mulgan, 2003; Bovens, 2007). As Brandsma and Schillemans (2013) indicate, many authors set out to produce their own specific definitions of accountability making it seem like an ever-expanding concept, which has come to stand as a general term for any mechanism that makes powerful institutions responsive to their particular publics (Brandsma and Schillemans, 2013; Mulgan, 2003, p. 8). Nonetheless, there is an overlap in what many authors present as the core of their definitions of accountability. The basic notion of accountability is understood to be a communicative interaction between an accountant and an accountee, in which the former's behavior is evaluated and judged by the latter, in light of possible consequences (Bovens, 2010; Mulgan, 2003; Schillemans, 2011).

The relationship between a public sector organization and the oversight government is a typical example of a principal-agent relationship, whereby the public sector organization acts as the agent of their political and administrative principals. Principal-agent theory emphasizes that the agent may use its autonomy to behave opportunistically (Jensen and Meckling, 1976). Subsequently, traditional forms of accountability mechanisms in public administration are often vertical and characterized by a superior (oversight government) demanding accountability from a subordinate (agency).

However, several scholars have pointed at important changes in accountability systems resulting from NPM reforms (Denhardt and Denhardt, 2007). The increased autonomy of public sector organizations has limited the possibilities for strict ministerial control (e.g., OECD, 2002; Flinders, 2004; Haque, 2000; Schillemans, 2008). For instance, OECD (2002) points to some general problems, such as the lack of clarity regarding roles and accountability of top governance structures (appointment and evaluation of CEOs and boards) and weak accountability mechanisms to ministers and ministries, parliament and civil society. The introduction of new vertical accountability mechanisms such as result-oriented reporting, multi-year performance agreements and monitoring mechanisms aim at strengthening accountability to minister and ministries. Most of these mechanisms are a new category of auditing, monitoring

and evaluating mechanisms which focus specifically on efficiency and performance (Power, 1997). NPM has thus led to a proliferation of various monitoring and regulating bodies designed to safeguard some 'public' standards in the absence of direct ministerial control (Hood *et al.*, 2004; Scott, 2000). These kinds of accountability mechanisms are obviously intended to limit the independence of an organization in undertaking actions. Yet, an independent but accountable agency performs its tasks without political interference, but its decisions are scrutinized afterwards, so that it operates under the shadow of possible sanctions. To put it another way: accountability is to 'trust but verify' (Behn, 2001, p. 106). The focus of vertical accountability mechanisms thus lies on ex-post result control.

Furthermore, public sector organizations are also becoming more and more externally oriented, with a stronger focus on the provision of flexible and tailored responses to citizens' needs (Van Ryzin, Muzzio and Immerwahr, 2004). Denhardt and Denhardt (2007, p. 119) point out that 'Public administrators are and should be held accountable to a constellation of institutions and standards, including the public interest; statutory and constitutional law; other agencies; other levels of government; the media; professional standards; community values and standards; situational factors; democratic norms; and of course, citizens'. Romzek and Ingraham (2000) refer to the hierarchical, legal, professional and political types of accountability. Stone (1995) distinguishes five modes of administrative accountability: parliamentary control, judicial/quasi-judicial review, managerialism, constituency relations (downwards and sideways) and market (Stone, 1995, p. 511).

Consequently, also other mechanisms are developed to improve the accountability of autonomous public organizations directly to citizens, clients, customers and other groups, for example by the inclusion of these groups in boards, the distribution of annual reports, and freedom of information laws. As discussed by Schillemans (2011), many of these new mechanisms can be understood as horizontal forms of accountability, as they do not directly address the political principal of agencies, but aim at significant stakeholders such as clients (Pollitt, 2003), or professional peers (Thatcher, 2002), and use systems of quality control (Aucoin and Heintzman, 2000), codes of conduct (Flinders, 2001) and exit and voice (Meijer and Schillemans, 2009). Literature (e.g., Mulgan, 2003) indicates that accountability is linked to some specific key questions: who is accountable, to whom, about what, and how? Our distinction is based on the 'to whom question'. We define horizontality as being accountable to any external third party stakeholder – clients, customers, board members. This assumption belies, contrary to the work of O'Donnell or Schedler, the possibility that these parties outside of the traditional hierarchy can exert command and control authority. These new forms and tools of accountability are, for example, performance audit and reporting, client panels, scorecards and benchmarks, professional evaluations, etc. For some of these horizontal accountability practices the accountees are not provided with strong sanctioning powers. Indeed, many of these forms have an

informal character. Nonetheless, negative publicity can also be regarded as a possible sanction (Schillemans, 2010, p. 301, pp. 305-306; Schillemans, 2011, p. 391). Thus, accountability means having the responsibility to uphold a certain level of performance based on a set of expectations outlined by another party. Based on the above we construct the following hypotheses:

- H1: Organizations with higher levels of managerial autonomy are more likely to be subjected to horizontal accountability mechanisms compared to organizations with lower levels of managerial autonomy.*
- H2: If organizations are subjected to horizontal accountability mechanisms, the intensity hereof will be positively related to the degree of managerial autonomy organizations enjoy.*

It is however still debatable to what extent these horizontal accountability mechanisms actually replace, complement or supplement vertical systems of accountability (see for different view, Pollitt and Bouckaert, 2000; Haque, 2000): it is 'not clear how responsiveness to market signals by independent organizations can be an effective and appropriate substitute for traditional, vertical mechanisms of democratic accountability' (Thomas, 2003). Research in favor of horizontal accountability mechanisms asserts that: (1) horizontal accountability enhances internal learning and internal quality improvement (Schillemans, 2008; Bovens, Schillemans and 'T Hart, 2008); (2) it broadens control and scrutiny of the organization to stakeholders and citizens, creating participation, legitimacy and countervailing powers; and (3) that it complements vertical accountability to the minister.

Yet, more restrictive perspectives claim that such horizontal systems can never replace or even complement vertical direct accountability (Mulgan, 2000; Michels and Meijer, 2008). Nonetheless, we follow the first, positive perspective and construct the following hypotheses:

- H3: Organizations with lower levels of vertical accountability have a higher likelihood of being subject to horizontal accountability mechanisms compared to organizations with higher levels of vertical accountability.*
- H4: If organizations are subjected to horizontal accountability mechanisms, the intensity hereof will be positively related to the degree of vertical accountability.*

In this article, two horizontal accountability mechanisms are studied: the existence of a board and the use of customer surveys. These accountability mechanisms are defined as horizontal since these can be used as a mechanism to hold public sector organizations accountable towards customers and peer organizations (Haque, 2000). However, as discussed, it is possible that signals can be picked up by more powerful accountees, such as the minister or parent department giving them a hybrid character. For what follows and in line with the literature (e.g., Schillens, 2011 on the existence of boards; Aucoin and Heintzman, 2000) on the use of customer surveys we will however refer to these as horizontal accountability mechanisms. In Figure 1 this relationship is visually presented.

Given the lack of evidence in the literature, no assumptions are made regarding the effect of agencification, and consequently managerial autonomy, on the character of horizontal accountability mechanisms; hybrid (mixture of government officials and third parties) or totally externally oriented (only third parties and thus purely horizontal).

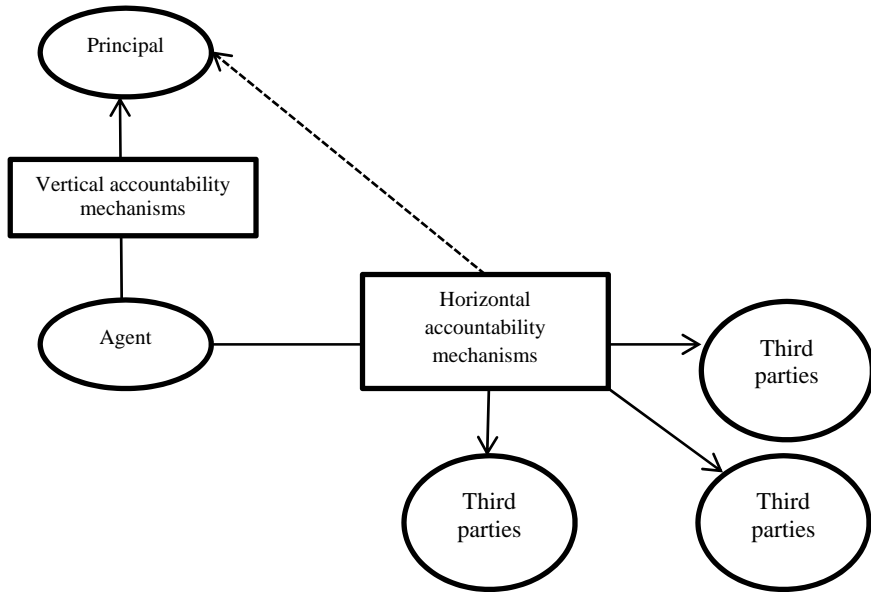


Figure 1: Vertical and horizontal accountability mechanisms

3. Data

Data used for the analysis have been provided by the COBRA-network ('Comparative Public Organization Data Base for Research and Analysis')¹. This network developed a common questionnaire in order to survey senior managers of public sector organizations in particular, (semi)-autonomous agencies located directly beneath ministries and ministers. Top-level management (Chief Executive Officers (CEOs)) of state agencies was asked, on behalf of the entire organization, to fill in a web-based questionnaire containing several types of questions (i.e., perceptions of autonomy and control, innovative activity, management and organizational culture). Although the COBRA database includes a wide range of countries, only some of them have information on accountability mechanisms. For this paper we will therefore use data on agencies from seven countries: Belgium (Flanders), the Netherlands, Austria, Portugal, Romania, Sweden and Denmark. In Table 1 the response rates per country are presented. The goal of this article is not to conduct a cross-country comparison of the effect of autonomy on accountability, but to examine this relation independently from country characteristics. Consequently, the selection of these countries is not

¹ For more information see <http://soc.kuleuven.be/io/cost/index.html>.

vested in theory but is based on maximizing the amount of data while maintaining a representative sample (see 3.4 for more information on representativeness).

Table 1: Response rates

Response rates per country		
Country	Sample	Population
Belgium	124	220
The Netherlands	219	574
Austria	68	175
Portugal	155	342
Romania	46	127
Sweden	181	255
Denmark	162	262

In some countries the response rate is moderate to low. However, the survey was targeted to all agencies (and not to a sample of the total population). In that perspective, the level of representativeness is high. Indeed the different agency types and policy sectors are represented in a proportional way. See <http://soc.kuleuven.be/io/cost/survey/> for more information.

3.1. Measuring horizontal accountability

Two horizontal accountability mechanisms are examined: the existence of a board and the use of customer surveys.

Board: In the COBRA data respondents were asked if their organization had a board and if so – the specific composition hereof. Based on this question a categorical variable is constructed. Hereby, zero means the absence of a board, one means that a board exists and that it includes a mixture of government officials and third party representatives. The variable is set to two if there are no government officials in the board. The variable thus offer information on the existence of a board and if it exists, the composition hereof (hybrid or fully horizontal).

Customer surveys: Respondents were asked if their organization makes use of customer surveys and if so to what degree. First, a dummy variable indicating whether or not the organization makes use of customer surveys is developed whereby the dummy is set to 1 if the organization does make use of customer surveys and to 0 otherwise. A second dummy variable is developed whereby this dummy is set to one when respondents indicated that the organization makes use of customer surveys to a great extent, if this was not the case the dummy is set to zero. Both variables offer information on the existence of horizontal accountability mechanisms. Furthermore, the use of customer surveys gives us an insight on the extent to which an accountability mechanism is actually used, while the variable board offers more information on how an accountability mechanism is used (hybrid or purely horizontal).

In Figure 2, an overview of the existence and composition of a board across organizations is given. A small majority of agencies has no board. However, when agencies have a board, we notice that a large majority (60.01%) has a fully external oriented board (only third parties, no government representatives). 39.9% of agencies report

to have a hybrid board, meaning that it includes both third parties and government officials.

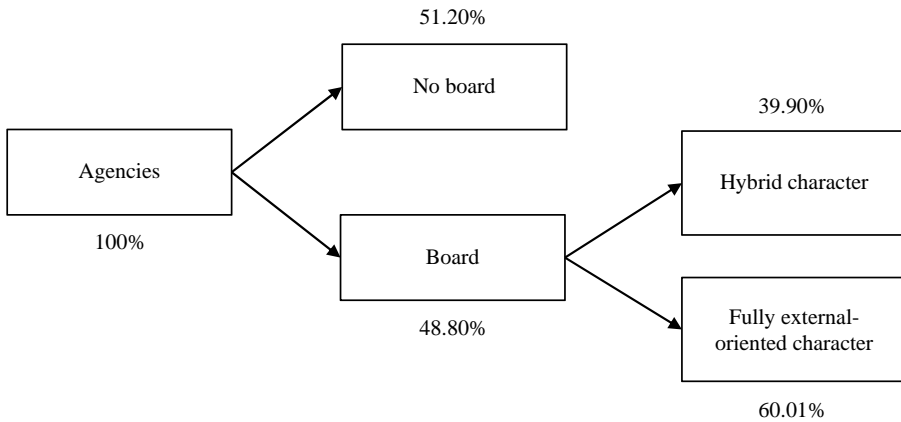


Figure 2: Existence and composition of a board

In Figure 3, an overview of the use of customer surveys is presented. A strong majority of agencies (85.82%) report to make use of customer surveys. Yet only 29.69% of agencies report to make use of these to a large extent.

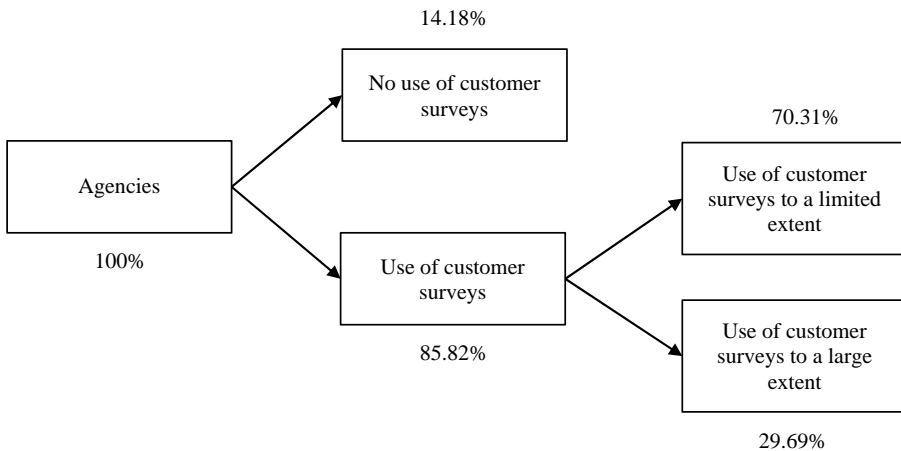


Figure 3: Use of customer surveys

3.2. Measuring the degree of managerial autonomy and vertical accountability

As indicated in the literature (Verhoest *et al.*, 2004; Maggetti, 2007), *de facto* autonomy of an agency can diverge quite substantially from the formal-legal independence of an agency. Autonomy is here understood as the ability of agencies' management to make decisions, free from pressure from their government, minister or parent department. More specifically, we focus on managerial autonomy whereby two forms of management autonomy are included: personnel and financial management autonomy.

Personnel management autonomy relates in this paper to the autonomy an organization has on (1) decisions concerning salary level, (2) promotion, and (3) evaluation of staff. More precisely, we use *strategic* personnel management autonomy, referring to the extent to which the organization has the ability to decide upon regulations, procedures and criteria concerning the salary level, promotion and evaluation of staff itself without interference from above (ministers or departments). A categorical variable is constructed based on the number of decisions the agency can autonomously make whereby 0 (the minimum) refers to no autonomy on the three matters and 3 (the maximum) refers to autonomy on all above-mentioned issues.

Also for the operationalization of strategic **financial management autonomy**, a categorical variable is constructed, based on the aggregation of the scores on three indicators: the extent to which the organization is able to (1) shift personnel and running cost budgets, (2) to set tariffs for services and products, and (3) to shift personnel-running cost and investment budgets. Similar to the variable for personnel management autonomy the categories range from 0 to 3. The degree of vertical accountability is included using two variables: **organizational vertical accountability** and **individual vertical accountability**. Organizational vertical accountability mechanisms are used by the political principal to hold the organization itself accountable. The variable is constructed based upon two agency characteristics: the evaluation of the organization by or on behalf of minister and department and the fact whether or not organizational results are linked to rewards and sanctions. If there was no such evaluation and sanction or rewards, the agency received a 0 on vertical accountability. Vertical accountability was set to 1 when only one of the characteristics was available and to 2 when both characteristics were present. Individual vertical accountability is based on: accountability of the senior management with respect to results achieved, accountability with respect to general administrative functioning and/or with respect to legality of actions and decisions taken. Each of these variables has three values; 0, 0.5 and 1. Whereby 0 stands for no accountability and 1 stands for accountable to a large extent. These values have then been aggregated so that the index represents a value between 0 and 3.

3.3. Control variables

Other factors determining the level of accountability mechanisms for agencies are numerous. However, a comprehensive discussion of all these possible determinants lies beyond the scope of this article. Instead, we will focus on: size in terms of full time employees (FTE), budget of agencies, organizational age, formal independence, primary task, and degree of vertical accountability (individual and organizational). By controlling for these factors, we want to reduce the possibility that the found influences of managerial autonomy on accountability mechanisms are in fact due to the influence of other variables that are not in the model.

1. Formal independence is measured by the legal-structural type of agency and the formal-legal distance from government. A dummy (**Type**) is coded one if the

agency is a public or private law based corporation and is set to zero otherwise. If the dummy equals one, this means that the agency is further away from the government.

2. **Size (FTE)** and **Budget** can be interpreted in two ways. Agency research has clearly shown that size and budget are both proxies for political salience, as bigger agencies with larger budgets pose greater risks to politicians in case something goes wrong (Pollitt *et al.*, 2004). Moreover, size and budget also refer to the capacity of an agency to invest in mechanisms for accountability, not only to their political principals, but also to their stakeholders. Because the distributions of Size and Budget are highly skewed, we use the logarithms, that is; $\ln(\text{Size})$ and $\ln(\text{Budget})$ in our model.
3. Organizational age is included as a proxy for organizational stability. Agencies 'age' (**Age**) is measured in years since founding (survey year minus year of set-up). Since the distribution of Age is highly skewed, we use the logarithm, that is; $\ln(\text{Age})$ in our model.
4. Measurability of primary organizational task, distinguishing between tasks which are difficult to measure (i.e., policy formulation, regulation and other tasks of public authority) and tasks which are relatively easy to measure (i.e., service delivery and commercial tasks). A dummy (**primary task**) is included in order to examine the effects of primary organizational task. This dummy is set to one when the primary task of services exists (general public services and business and industrial services).

3.4. Analysis of regressors

Table 2 shows the summary statistics for the main variables. The purpose of this table is to test whether the estimation subsample used in the regressions continues to be representative of the entire, representative sample or is instead biased in one or more variables, because of an unbalanced distribution of missing values. Overall, the values reported in Table 2 in the Original Sample and Used Sample columns are very similar, suggesting that our sample is representative. The linear correlation analysis among regressors is reported in Table 3. There appears to be a strong correlation between personnel and financial management autonomy (0.5672) and between size (FTE) and budget (0.5224). Subsequently, we also test for multicollinearity using the variance inflation factor (VIF). The mean VIF equals 1.34, whereby, as expected, the highest VIFs exist for personnel and financial management autonomy (1.57 and 1.64). These values indicate that no collinearity exists between the variables.

Table 2: Descriptive statistics

Variable	Description	Original Sample			Used Sample		
		Mean	Sd.	N	Mean	Sd.	N
Customer surveys	Variable measuring the use of customer surveys (0= no surveys/1= to a limited extent/2= to a great extent)	1.119	0.647	733	1.113	0.620	416
Board	Variable measuring the existence and composition of a board (0= no board/1= hybrid board/2= no government officials)	0.749	0.900	873	0.781	0.871	416
Personnel Management	Variable measuring the degree of personnel management autonomy (the means reported reflect the percentage of observations for each category)						
Autonomy							
Low		0.235	0.424	816	0.236	0.425	416
Medium		0.180	0.385	816	0.161	0.368	416
High		0.585	0.493	816	0.603	0.490	416
Financial Management	Variable measuring the degree of financial management autonomy (the means reported reflect the percentage of observations for each category)						
Autonomy							
Low		0.342	0.475	792	0.349	0.477	416
Medium		0.404	0.491	792	0.394	0.489	416
High		0.254	0.435	792	0.257	0.438	416
Budget (log)	Budget	2.121	2.574	851	2.174	2.499	416
Size(FTE) (log)	Size in Full Time Equivalents	4.735	1.859	895	4.748	1.788	416
Age (log)	Organizational age (survey year minus year of set-up)	2.748	1.240	977	2.725	1.293	416
Primary task	Task (1=primary tasks exists of services)	0.590	0.492	820	0.596	0.491	416
Type	Legal Type (1=public or private law based corporation)	0.508	0.500	1022	0.433	0.496	416
Organizational vertical accountability	Categorical variable whereby: 0=no evaluation and no rewards or sanctions/ 1=evaluation or rewards or sanctions/2=evaluation and rewards or sanctions	2.219	0.746	773	2.308	0.722	416
Individual vertical accountability	Index ranging from 0-3, based on: accountability of senior management for results (0/0,5/1), accountability with respect to general administrative functioning (0/0,5/1), accountability with respect to legality of actions and decisions taken (0/0,5/1).	2.148	0.948	685	2.236	0.902	416
Countries	The reported means reflect the percentage of observations						
Belgium	Dummy (1= Belgium)	0.121	0.326	1025	0.127	0.334	416
the Netherlands	Dummy (1= The Netherlands)	0.201	0.401	1025	0.113	0.317	416
Austria	Dummy (1= Austria)	0.0634	0.244	1025	0.0865	0.281	416
Portugal	Dummy (1= Portugal)	0.151	0.358	1025	0.163	0.370	416
Romania	Dummy (1= Romania)	0.0449	0.207	1025	0.0769	0.267	416
Sweden	Dummy (1= Sweden)	0.248	0.432	1025	0.228	0.420	416
Denmark	Dummy (1= Denmark)	0.171	0.376	1025	0.204	0.404	416

Table 3: Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Customer surveys	1										
2. Board	(2) -0.0701	1									
3. Personnel Management Autonomy	(3) 0.0819*	0.0378	1								
4. Financial Management Autonomy	(4) 0.1069**	0.0739	0.5672***	1							
5. Budget (log)	(5) 0.0998**	0.1146**	0.0915*	0.0320	1						
6. Size(FTE) (log)	(6) 0.1618***	0.1465**	0.0638	-0.0196	0.5224***	1					
7. Age (log)	(7) -0.0469	-0.0412	0.2410***	0.2282***	0.0454	0.0762	1				
8. Primary task	(8) 0.1817***	0.1703***	0.1273***	0.2894***	0.0365	0.1339***	0.1608***	1			
9. Type	(9) 0.1931***	0.2753***	0.0972**	0.1032**	-0.1481***	0.0021	-0.1855***	0.1255**	1		
10. Organizational vertical Accountability	(10) 0.0620	-0.1263***	0.0116	-0.0703	0.1157**	0.1329***	-0.0776	0.0047	-0.1303***	1	
11. Individual vertical accountability	(11) -0.0025	-0.2025***	0.0682	-0.0657	0.0973**	0.1542***	0.0260	-0.2007***	-0.2606***	0.2729***	1

All variables are available for the following countries: Belgium (53 obs.), the Netherlands (47 obs.), Austria (36 obs.), Portugal (68 obs.), Romania (32 obs.), Sweden (95 obs.) and Denmark (85 obs.)

4. Methodology and results

In order to examine the proposed hypotheses, logit regressions have been estimated whereby odds ratios have been calculated. It is important to note that odds lower than 1 have the same meaning as a negative sign in traditional regression analysis and thus refer to a negative relationship.

Since agencies are nested in different countries, we included country dummies. As the goal of this article is not to conduct a cross-country comparison of the effect of autonomy on accountability, but to examine this relation independently from country characteristics, the use of dummy variables is an appropriate approach to investigate relations while controlling for the influence of country characteristics.

In Table 4 the results of the regressions are presented. For each of the accountability mechanisms two analyses are presented: one for the existence of the accountability mechanism (column 1 and 3), and one for the composition (column 2, in case of board) or the extent to which it is used (column 4, use of customer surveys). When analyzing column 1 and 3 we notice that the existence of horizontal accountability mechanisms do not appear to be affected by the degree of managerial autonomy. Both personnel and financial management autonomy have no effect on the existence of a horizontal accountability mechanism.

Hypothesis 1 is clearly not supported by our results: managerial autonomy has no impact on horizontal accountability. Furthermore, organizations which are subject to vertical accountability mechanisms (both individual and organizational) have a lower likelihood to have a board as well, while vertical individual accountability mechanisms positively affect the use of customer surveys. Hypothesis 3, claiming that vertical accountability mechanisms have a negative impact on the use of horizontal accountability mechanisms, can therefore not be confirmed. A possible explanation for the opposite effect of vertical accountability across horizontal accountability mechanisms can be the fact that a strong use of vertical accountability mechanisms reduces the need for an extra 'alternative' accountability mechanism such as the setup of a board, regardless of the legal distance of the agency. While a positive effect of vertical individual accountability for the use of customer surveys can be explained by the fact that customer surveys can help in achieving goals set for the organization and can thus help in fulfilling vertical accountability requirements.

In addition, other variables prove to have a strong influence on the existence of horizontal accountability mechanisms. One such variable is size in terms of FTE: larger organizations have a greater likelihood of having a board or to use customer surveys². This is in line with the literature (e.g., Pollitt *et al.*, 2004) and can be explained by the fact that larger agencies have more capacity to invest in mechanisms for accountability. Additionally, large agencies are in most cases also of crucial importance

2 We tested different forms of Budget and Size (FTE), such as non-logged or classes. Furthermore, we tried non-linear specifications. This led to similar results.

for specific interest groups which will call for sufficient ways to hold the agency management to account for their actions and their effects on the private interests of these groups (Verhoest *et al.*, 2010). Furthermore, larger agencies also pose greater risks to politicians in case something goes wrong (Pollitt *et al.*, 2004).

Another variable that strongly affects the existence of horizontal accountability mechanisms is type or formal independence of organizations, agencies further away from political principals are more likely to have a board or use customer surveys. Horizontal accountability mechanisms thus appear to be more prevalent in agencies with high formal independence compared to organizations which are closer to government. This is in line with the literature (e.g., Egeberg, 2003) which states that officials in agencies have very little contact with political oversight authorities. In their decision-making, accountability goes in the first place to professional and expert considerations. Next come user and client interest, and only in the third place weight is assigned to political signals. In ministerial departments (not vertically specialized) on the other hand, priority is given to signals from the minister and the professional concerns. Less attention is paid to signals from user and client groups.

Furthermore, also primary task appears to have an impact on the presence of horizontal accountability mechanisms. Agencies with services as primary task appear to be more likely to have horizontal accountability mechanisms in place. Intuitively this makes sense since these organizations interact most with citizens and private organizations as customers leading to a greater focus on third parties (Laegreid, Roness and Verhoest, 2011). Finally, country differences strongly affect the existence of both examined horizontal accountability mechanisms.

More information on the extent to which a horizontal accountability mechanism is used (Hypothesis 2 and 4) is provided in column 4. When examining this column, we notice that managerial autonomy does not affect the intensity of using customer surveys. Hypothesis 2 is consequently not supported. Only type and individual vertical accountability appears to affect the use hereof. Strangely, however, organizations which are further away for political principals are less likely to make use of these to a great extent. Such organizations are thus more likely to use customer surveys, they are however less likely to use them to a great extent. Again individual vertical accountability proves to have an effect on using customer surveys; not only will organizations with a higher individual vertical accountability be more likely to make use of customer surveys, they also report to make use of these to a greater extent compared to other agencies. Subsequently, hypothesis 4 is confirmed. Finally, country differences again appear to be important.

By examining column 2, we get an insight in the factors affecting the composition of the board and thereby on the character of such an accountability mechanism (hybrid or totally horizontal). Although managerial autonomy proved to have no effect on the setup of a board, personnel management autonomy affects the composition hereof ($\chi^2(2)=8.85^{**}$). The higher the degree of personnel management autonomy, the less likely the board will be composed only of third parties, without government of-

Table 4: Logistic regression analyses

Variables	Board		Customer Surveys	
	No/Yes	Hybrid/ Fully external	No/Yes	Some degree/ High degree
	(1) odds ratio	(2) odds ratio	(3) odds ratio	(4) odds ratio
Personnel Management Autonomy				
Medium	2.302* (1.057)	0.333 (0.234)	1.468 (0.847)	0.763 (0.473)
High	1.550 (0.738)	0.101*** (0.0805)	3.032 (2.051)	0.702 (0.461)
Financial Management Autonomy				
Medium	1.227 (0.418)	1.170 (0.650)	1.093 (0.524)	1.735 (0.818)
High	0.741 (0.304)	1.897 (1.261)	0.743 (0.441)	1.959 (1.115)
Budget(log)	1.038 (0.0603)	0.940 (0.117)	1.093 (0.0920)	1.078 (0.0758)
Size(FTE) (log)	1.283*** (0.104)	1.109 (0.164)	1.481*** (0.190)	1.058 (0.107)
Age(log)	0.917 (0.0922)	1.127 (0.188)	0.875 (0.137)	0.919 (0.116)
Type	5.666*** (2.230)	1.036 (0.592)	4.370** (2.719)	0.369* (0.217)
Primary task (Services)	1.864** (0.484)	0.283*** (0.132)	2.274** (0.839)	1.347 (0.467)
Organizational vertical accountability	0.753* (0.128)	0.792 (0.212)	1.312 (0.319)	0.920 (0.210)
Individual vertical accountability	0.728** (0.116)	0.966 (0.241)	1.534* (0.361)	1.462* (0.295)
Country dummies	Included	Included	Included	Included
Constant	0.315 (0.236)	18.23** (21.41)	0.233 (0.253)	0.0421*** (0.0445)
Observations	416	159	416	323
Joint significance Personnel Management Autonomy	$\chi^2(2)=3.48$	$\chi^2(2)=8.85^{**}$	$\chi^2(2)=2.77$	$\chi^2(2)=0.30$
Joint significance Financial Management Autonomy	$\chi^2(2)=2.91$	$\chi^2(2)=1.26$	$\chi^2(2)=0.67$	$\chi^2(2)=1.60$
Joint significance country dummies	$\chi^2(6)=32.88^{***}$	$\chi^2(4)=9.10^*$	$\chi^2(6)=11.48^*$	$\chi^2(5)=27.67^{***}$
McFadden's R ²	0.202	0.192	0.247	0.128
McKelvey & Zavoina's R ²	0.341	0.327	0.447	0.215
% correctly predicted	71.63	73.58	87.26	79.26

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

ficials. In other words, more managerial autonomy will increase the odds of having a hybrid board. Consequently, the board can in such a case be used to complement vertical accountability mechanisms. Furthermore, primary task has a negative effect, meaning that organizations with services as primary task are more likely to have a hybrid board. Finally, country differences are again important.

5. Discussion and conclusion

This article contributes to the literature on accountability in the public sector by empirically examining drivers behind the existence and use of horizontal accountability mechanisms, allowing us to understand the real dynamics in administrative reforms beneath 'grand' labels such as NPM. The results indicate that the link between agencification on the one hand and the existence and use of horizontal accountability mechanisms on the other hand, is not as clear-cut as expected. Several variables were found to have an effect on the existence of horizontal accountability mechanisms. Contrary to hypothesis 1, the degree of managerial autonomy proved however to have no effect on the existence of horizontal accountability mechanisms. Formal independence, size, primary task and country differences showed a strong effect on the existence of horizontal accountability mechanisms. All examined variables have the same effect (in terms of sign) on both examined horizontal accountability mechanisms. Agencies which are legally placed further away from political principals are more likely to be faced with horizontal accountability mechanisms. This makes sense and is in line with the literature (e.g., Egeberg, 2003). Furthermore, larger agencies and agencies with services as primary task are also more likely to be subject to horizontal accountability mechanisms.

Vertical accountability mechanisms did have an effect on the existence of horizontal accountability mechanisms, yet the precise effect differed per horizontal accountability mechanism. In case of the setup of a board, vertical accountability mechanisms (both individual and organizational) proved to have a negative effect. Consequently, when vertical accountability mechanisms are well developed, horizontal accountability mechanisms are not used to replace or even supplement vertical accountability mechanisms. The introduction of new vertical accountability mechanisms such as result-oriented reporting, multi-year performance agreements and monitoring mechanisms appear to succeed in their aim to strengthen the accountability to minister and ministries. This in turn decreases the need to setup alternative, horizontal mechanisms of accountability.

Individual vertical accountability mechanisms however had a positive effect on both the setup and use of customer surveys. Organizations whereby the CEO is personally accountable are more likely to make use of customer surveys and are even more likely to make use of these to a large extent. A possible explanation could be that these surveys are used to strengthen the results of the organization. As such, this horizontal accountability mechanism is indirectly used to help fulfilling vertical accountability requirements.

Finally, this article examined the effect of managerial autonomy on the composition of a board and thereby the nature of the horizontal accountability mechanism (hybrid or purely horizontal). Although managerial autonomy proved to have no effect on the setup of a board, personnel management appeared to be important when explaining the specific composition hereof. The higher the degree of personnel management autonomy the more likely that an agency has a hybrid board (mixture of government officials and third party representatives) instead of having a board with a purely horizontal character (only third parties). The setup of a board is strongly rooted in the legal status of the agency (type), yet this is less so for the composition of the board. When the oversight government offers the agency extended managerial autonomy, regardless of the legal status, it still wants to have some kind of control on the agency. By establishing a hybrid board, the minister or parent department can more easily control the agency and intervene when necessary.

Based on these findings horizontal accountability mechanisms do not seem to be able to replace vertical accountability mechanisms, yet they appear to be used to supplement or reinforce vertical accountability mechanisms. Primary task also proved to have an effect on the composition of a board; agencies with services as primary task are more likely to have a hybrid board. This could be a strategy to reduce the dominance of private interests over general interest, poor diffusion of information to other groups, lack of criteria and poor quality of information.

To conclude, country differences appear to be important when examining the existence, use as well as the composition of horizontal accountability mechanisms. Country differences therefore definitely matter. However, studying these country differences lies beyond the scope of this article since, as we only have country dummies, these cannot be examined in detail. In a further step, it would be interesting to take specific countries and cultural variables into account by employing a multilevel model. Given the fact that currently we have too few countries and since these countries are not randomly selected this was currently not an option. Future research studying this in more detail would nevertheless be a timely and valuable contribution to the body of knowledge regarding this issue.

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