New development: Determinants of financial performance in public organizations

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New development: Determinants of financial performance in public organizations

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In the slipstream of NPM, public organizations worldwide have had to increase their financial performance by adopting management practices. Nonetheless, financial performance (FP) might be mostly predicted by contingencies that are not within direct managerial control. Drawing on evidence from 308 Flemish municipalities, this article shows that organizational and environmental contingencies affect FP, but a significant amount of variation in FP is unexplained—indicating that management could well matter.

Keywords: Contingency theory; local government; municipalities; New Public Management; public service performance.

As a result of New Public Management (NPM) reforms, as well as austerity regimes throughout the public sector, the financial performance (FP) of public organizations is high on the agenda of policy-makers, public officials and academics. NPM promotes parsimonious resource use and efficient, as well as effective, public organizations as an alternative to the traditional, bureaucratic model of government (Hood, 1991). NPM agendas typically look at private sector management practices as the best way of doing things (Diefenbach, 2009). Hence, practices such as performance management and strategic planning have conquered the public sector in many countries. In local government, in particular, there have been several NPM-like reforms that require local governments to plan, monitor and report their performance to a central authority (see, for example, Boyne et al., 2002; George et al., 2016, 2017). Importantly, such performance can be linked to financial incentives for ‘good’ performers or punitive measures for under-achievers (Bovaird, 2008).

Following this line of thought, one could argue that management has a trivial part to play and that policy-makers should focus their attention on, for instance, increasing an organization’s budget or number of employees, or reducing the need/deprivation of an organization’s client base. However, there is an underlying danger that, by doing this, a big and unsustainable government will re-emerge with rigid and standardized procedures. This Weberian bureaucratic model has never really ‘left’ the public sector and still dominates in many countries (Hammerschmid et al., 2016). The debate between NPM proponents and NPM opponents is far from over and there is a stringent need for more evidence to inform this debate and identify which NPM assumptions hold and which do not.

In this article, we draw on data from 308 Flemish municipalities to empirically test one of NPM’s core assumptions: namely that contingencies matter for FP but do not necessarily explain the largest ‘chunk’ of performance variation across public organizations—there is thus a necessity to look at other potential performance drivers including private sector management practices.

Non-managerial determinants of FP

Contingency theory argues that organizations, as well as organizational practices, are influenced by factors that are—to some extent—exogenous to the management process (for example size, budget, client base) (Donaldson, 2001). We focus here on two sets of contingencies that are often mentioned in public sector performance literature, namely organizational contingencies.

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and environmental contingencies (see, for example, Andrews et al., 2009; Walker et al., 2010). Our conceptual model is presented in figure 1.

Organizational contingencies and FP
We hypothesize that three organizational contingencies are particularly relevant to elucidate FP: a public sector organization’s budget, size and previous FP. First, a prosperous municipality might be able to ‘buy’ good FP, thus a positive impact of the expenditure level on FP is expected (Andrews et al., 2009). Second, an organization with a large staff is more likely to attract and possess the necessary expertise inhouse to address financial challenges and, again, improve FP (Jung, 2013). Third, public organizations are viewed as autoregressive systems that change incrementally over time. This implies that an organization’s activities today are highly conditioned by what it did yesterday—we thus expect future FP to be strongly influenced by FP at a specific baseline (Walker et al., 2010). This results in following three hypotheses:

H1: An organization’s budget is positively related to FP.
H2: An organization’s size is positively related to FP.
H3: An organization’s past FP is positively related to its current FP.

Environmental contingencies and FP
We hypothesize two environmental contingencies that could influence FP in public organizations: client need and client deprivation. Client need indicates the number of clients serviced: a higher number of clients imposes additional pressures on an organization’s finances as measures to address all of these clients’ needs need to be imposed (Andrews et al., 2010). Client deprivation relates to the type of client being serviced. The more deprived clients are, the more services that might be required—placing additional pressure on an organization’s finances (Walker et al., 2010):

H4: Client need is negatively related to FP.
H5: Client deprivation is negatively related to FP.

Methods
Empirical setting
We tested our hypotheses on Flemish municipalities. Flemish municipalities are multi-purpose public organizations with wide-ranging autonomy to pursue any policy that promotes the interests of their inhabitants. Inspired by the NPM trend, the ‘traditional’ Flemish municipal budget cycle was exchanged by a new policy and management cycle (PMC) starting from fiscal year 2014 (George et al., 2016, 2017). The PMC was introduced to improve Flemish municipalities’ finances. A new measure of FP—the ‘self-financing margin’ (SFM)—was introduced to evaluate the FP of Flemish municipalities. The Flemish regional government, which supervises Flemish municipalities, imposed a strict financial objective—the SFM has to be positive at the end of each policy cycle.

Dependent variable
The SFM is our dependent variable. The SFM evaluates the long-term financial stability of a municipality and is calculated by reducing exploitation income (income from regular annual transactions in the municipality and therefore relating to the day-to-day administration of the municipality, for example tax receipts, fees and dividend yields) with exploitation expenditures (for example wages, office equipment and energy expenditure) and with loan charges (capital repayments and interest on outstanding loans). A positive SFM indicates that the municipality will, in the long run, be able to generate sufficient resources from normal exploitation to cover the charges of taking a loan. A positive SFM allows a municipality to invest without having to take on additional loan charges. In our analysis, we expressed SFM in thousands of euros per capita.

Independent variables
Our first three hypotheses concern the impact of organizational contingencies. H1 (on budget) was tested by looking at the municipalities’ expenditures. EXPEND measures the level of expenditures (compliant with the ESA standard) and is expressed in thousands of euros per capita. To test H2, we operationalized SIZE through the number of the municipality’s full-time equivalent staff. The third organizational contingency concerns previous FP, which was operationalized by including the one year lagged value of SFM.

Figure 1. Conceptual model predicting financial performance.

Organizational contingencies:
Budget (+)
Size (+)
Previous financial performance (+)

Environmental contingencies:
Client need (-)
Client deprivation (-)

Financial performance
The environmental contingencies (client need and deprivation) were tested in the model by introducing POP and UNEMPL. POP is the number of inhabitants in the municipality (which is a proxy for client need). UNEMPL is the local unemployment rate calculated as the percentage of inhabitants who are unemployed (which is a proxy for client deprivation). Before running our model, we tested for multicollinearity in our dataset with a correlation analysis—no issues were uncovered. Table 1 contains the descriptives, correlations and data sources.

Statistical analysis
Our model was designed to explain the FP of the full sample of 308 Flemish municipalities in 2014 (SFM) by a number of organizational (EXPEND, SIZE, and SFM_{t-1}) and environmental (POP and UNEMP) contingencies:

\[
SFM_t = \beta_0 + \beta_1 \times \text{EXPEND}_t + \beta_2 \times \text{SIZE}_t + \beta_3 \times \text{SFM}_{t-1} + \beta_4 \times \text{POP}_t + \beta_5 \times \text{UNEMP}_t + u_t
\]

We used ordinary least squares (OLS)—a common technique in public administration. To tackle possible heteroscedasticity issues, we used the White heteroscedasticity-consistent standard errors. Autocorrelation issues were avoided by using a lagged measure of SFM as an independent variable. Nevertheless, a lagged model may lead to incorrect conclusions if the model is non-stationary and/or if the residuals are serially correlated (Keele and Kelly, 2006). We controlled for both items by performing the Augmented Dickey-Fuller unit root test and Breusch-Godfrey serial correlation LM test respectively. The results of these tests suggested that there was no non-stationarity, nor any serial correlation.

Results
Table 2 presents the results of the estimation. From this, it is clear that the model explained about 15% of the variance of FP, thus indicating that 85% remains unexplained by organizational and environmental contingencies. The coefficients indicate that the results match the expected relations between FP and the independent variables. The coefficients all present the expected signs. The impact of organizational contingencies is indeed positive, while that of environmental contingencies is indeed negative. However, only budget (EXPEND) and previous FP (SFM_{t-1}) present significant coefficients (i.e. acceptance of H1 and H3), whereas the impact of the other contingencies is insignificant.

Discussion
Our objective was to show that FP is not only determined by organizational and environmental contingencies, but also by other performance drivers, in order to contribute to the debate surrounding NPM-style management practices. When we controlled for several contingencies that are often argued to affect FP, significant variation in FP remained unexplained. Our findings have important theoretical and practical consequences.

Theoretical consequences
• Scholars investigating FP in public sector organizations should control for the effects of contingencies. In particular, budget and an autoregressive term of FP need to be included in statistical models.

Table 1. Descriptives, correlations and data sources.

<table>
<thead>
<tr>
<th></th>
<th>SFM</th>
<th>EXPEND</th>
<th>SIZE</th>
<th>SFM_{t-1}</th>
<th>POP</th>
<th>UNEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptives</td>
<td></td>
<td></td>
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<tr>
<td>Mean</td>
<td>0.110</td>
<td>1.570</td>
<td>0.007</td>
<td>0.029</td>
<td>20814.980</td>
<td>2.143</td>
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<tr>
<td>Maximum</td>
<td>0.710</td>
<td>5.509</td>
<td>0.017</td>
<td>0.381</td>
<td>510610.000</td>
<td>4.894</td>
</tr>
<tr>
<td>Minimum</td>
<td>-0.161</td>
<td>1.000</td>
<td>0.003</td>
<td>-0.274</td>
<td>85.000</td>
<td>0.873</td>
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<tr>
<td>SD</td>
<td>0.106</td>
<td>0.479</td>
<td>0.002</td>
<td>0.095</td>
<td>34380.310</td>
<td>0.645</td>
</tr>
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<td>Correlations</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>SFM</td>
<td>1.000</td>
<td>0.249</td>
<td>0.156</td>
<td>0.340</td>
<td>0.027</td>
<td>-0.020</td>
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<tr>
<td>EXPEND</td>
<td>1.000</td>
<td>0.682</td>
<td>0.218</td>
<td>0.324</td>
<td>0.230</td>
<td></td>
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<tr>
<td>SIZE</td>
<td>1.000</td>
<td>0.114</td>
<td>0.358</td>
<td>0.374</td>
<td></td>
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<tr>
<td>SFM_{t-1}</td>
<td>1.000</td>
<td>0.014</td>
<td>-0.052</td>
<td>0.425</td>
<td></td>
<td></td>
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<tr>
<td>POP</td>
<td>1.000</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNEMP</td>
<td>1.000</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Sources
3: Belgian Statistical Office, Statbel (http://statbel.fgov.be/).
Future research should look for other potential performance drivers. In the Flemish case, NPM-style management practices have been imposed and, in time, it will be possible to assess the effect of these practices on FP.

Further evidence is needed to assess the validity underlying NPM. Simply ‘throwing the baby out with the bathwater’ might be shortsighted—some elements of NPM (such as using private sector management tools) might be better than others.

Practical consequences
• In times of austerity, as well as when dealing with migration issues, policy-makers do not always have the flexibility to alter environmental and organizational contingencies. We have shown that other routes to performance improvement are relevant and, potentially, more effective.
• We provide an evidence-based argument to governments worldwide that are implementing management reforms. Those resisting change because of their belief that performance is only determined by organizational and environmental contingencies are mistaken.
• Budgets and previous performance cannot be neglected. Public organizations with tight budgets, as well as historically bad FP, will have a harder time achieving new financial standards than their more prosperous and better-performing counterparts.

IMPACT
NPM sceptics have argued that a public sector organization’s budget, size, past performance and client need/deprivation have far more influence on FP than any management practice. We have demonstrated that, although these contingencies correlate with FP, ample variation remains unexplained and could be the ‘playing-field’ of management. This article is an evidence-based counterfactual to NPM sceptics who argue that FP is a ‘given’, based on an organization’s contingencies, and that management is of little importance.

References