

Accounting and Management Reform in Local Authorities: A Tool for Evaluating Empirically the Outcomes

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ABSTRACT

Since the last years many governments have undergone an accounting and management reform, being strongly inspired by the New Public Management (NPM) philosophy. This research note provides a methodology to explain the success (if any) of such reforms, by examining the level of compliance with prescribed accounting and management legislation and regulations. To measure the level of adoption of a reform, two compliance indices are constructed. Furthermore, this research note reaches a method to explain the cross-sectional differences in the level of compliance based on factors derived from previous research. After the formulation and explanation of the research questions and the derived hypotheses, this note introduces the concept of the compliance indices in local governments and clarifies the purpose and construction of the Accounting and Management index. The next section is devoted to an explanation of the research methodology. Finally, the conclusion summarizes the main findings and further research possibilities.

1. INTRODUCTION

From the early eighties onwards we have witnessed a radical wave of financial, organizational and managerial reform in the public sector of many countries (Broadbent and Guthrie, 1992; Burkitt and Whyman, 1994; Pollitt and Bouckaert, 2000). The 'Next Steps' programme and the 'Citizen's Charter' programme in the UK, the Canadian 'Public Service 2000', the 'PMI project' in the Netherlands and the French 'Project de service' are just a few examples of recent initiatives in reforming the public sector. One does not have to look far to find references claiming that New Public Management (NPM) has played a dominant role in this reform drive (Hood, 1991, 1995; Lapsley, 1999).

One cannot deny that NPM has changed the public sector landscape radically. Reviewing the international literature concerning NPM, the various scientific research projects were mainly concentrated around three themes, namely (1) *descriptive studies* of the NPM-movement with its advantages and disadvantages (Hood, 1991; Stark, 2002), (2) *critical analyses of the consequences* of adopting NPM principles in different governmental organizations (Barberis, 1998; Cunningham, 2000), and (3) *studies focusing on the implementation* of the new philosophy in different countries and levels of the public sector (Pallot, 1999; Klinger, 2000). Although a growing number of authors stress the necessity of evaluating the reforms themselves (Broadbent and Laughlin, 1997; Guthrie and English, 2002; Pollitt, 1995; ter Bogt and van Helden, 2000; Olson *et al.*, 2001), little attention has been paid to the level of compliance between the real world and the legislation that embodies the intentions of the reform, and to explaining differences in adoption.

The objective of this contribution is to prepare a method of evaluating and explaining to what extent NPM reforms in local authorities can be considered as successful and which determinants explain the cross-sectional differences in the adoption and implementation of the NPM-reform. Previous research (Christiaens, 1999) indicated that several factors (e.g. skills staff, experience, financial means, size,...) are important within the *accounting* reform in municipalities. Worldwide, however, there is little empirical research that investigates the success of *management and organisational* reforms in the public sector and the factors that determine their success.

2. EVALUATION OF NPM REFORMS

According to Hood (1991), NPM is associated with approximately seven dimensions of change. Pollitt considers this as a 'shopping basket' for those who wish to modernize their public organization (1995). Not every doctrine needs to be present in every reform and the specific reform elements may vary. In table 1 the context of the seven 'doctrinal components' is discussed and as an example applied for the recent reform in Flemish local authorities. Their reform is twofold: a first part refers to financial accounting aspects of NPM introducing accrual accounting. The second part belongs to the so-called 'new managerialism' (Pollitt, 1986; Guthrie and English, 1997; Painter, 1998) and gives rise to eight elements: administrative manual, long-range planning, budgeting, budget responsables, activity centres, cost accounting, management reporting and auditing (internal and external).

Insert table 1 about here

3. RESEARCH QUESTIONS AND HYPOTHESES

3.1 Research questions

Very often, researchers assume that the implementation of NPM-reforms happens immediately and completely. Consequently, a first goal of this research note is how to identify major areas of non-compliance in the accounting and management practices of reformed local authorities. This leads to the *first* research question:

RQ1 Do Local authorities comply with the new accounting and management regulations embodied in the corresponding legislation and regulations?

A *second* problem is the lack of empirical research attempting to explain cross-sectional differences in the adoption and implementation of new accounting and management practices. As discussed in table 2, the few international studies that have attempted to explain these differences only concentrate on reforms of the accounting system. Furthermore, those studies focus mainly on the specific issue of disclosure within these accounting reforms and do not pay attention to the broader concept of technical implementation (e.g. valuation, mechanical accuracy, cut-off, completeness, classification, ownership, disclosure,...). This broader concept has the advantage that it reflects more accurately the different facets of the success of an accounting reform leading to a *second* research question:

RQ2 Can the cross-sectional differences and problems be associated with explanatory factors derived from previous and current research?

3.2 Hypotheses

Based on previous research and taking as an example the factual situation of Flemish local authorities, a number of related hypotheses can be formulated. These hypotheses are just presented in the form of an enumeration without being exhaustive. The *first* research question can be hypothesized as follows:

H₁ Local authorities experience structural implementation problems in complying with the new accounting and management legislation and regulations.

With respect to the *second* research question a number of hypotheses are formulated and grouped into one of the following categories: *human, organisational* or *financial* resources. Additionally, *situational* factors are added with related hypotheses as shown in Figure 1.

Insert figure 1 about here

Human resources

This research note includes the professionalism of the executive (Lapsley and Pettigrew, 1994; Hepworth, 2003) and their accounting and management staff and assumes that their level of professionalism is positively associated with the level of compliance:

H₂₁ The level professionalism of the local government's accounting and management staff positively affects the level of compliance.

H₂₂ The level of professionalism of the local government's executive positively affects the level of compliance.

H₂₃ Hiring additional staff positively affects the level of compliance.

Organisational resources

The research note focuses upon the (in)formal contacts of the local government with other organizations having experience with accrual accounting and/or business-like management tools:

H₂₄ Having (in)formal contacts with organizations with accrual accounting and/or management experience/expertise positively affects the level of compliance.

H₂₅ Good project leadership positively affects the level of compliance.

Financial resources

The reasoning behind the following hypothesis is based on the “agency theory”, namely the tendency to improve management style and disclosure when a governmental entity is confronted with a higher level of debt/subsidies:

H₂₆ Reliance of the local government on debt/subsidies positively affects the implementation and compliance.

H₂₇ Wealthier local governments are superior in the level of compliance.

Situational factors

Whereas the previous categories look inwardly to the resources of an organisation (Makhija, 2003), the contingency model emphasises the importance of situational influences on the management and the organisation in question (Zeithaml *et al.*; 1988):

H₂₈ Larger local governments are superior in the level of compliance

H₂₉ Local political support positively affects the level of compliance.

H_{2.10} The level of external audit quality positively affects the level of compliance.

4. EVALUATION REFORM: ACCOUNTING AND MANAGEMENT INDEX

4.1 Origin of the compliance indices

For the accounting issues the research note constructs the *accounting index* (Christiaens 1999, Christiaens and Vanhee 2003). This concept was originally based on Ingram's *disclosure index* (1984), which has been an important example and has directly or in a modified way been used in a great number of similar accounting studies (see table 2). Based on this accounting index, the current study constructs the *management index* for the evaluation of the introduction of the new administrative organization and management tools. This index is also inspired on the so-called Index Construction Methodology Coy *et al.* (1993), whose approach broke new ground in governmental accounting research.

Insert table 2 about here

4.2 Construction of the compliance indices

The concept 'compliance' includes notions of *explicit* requirements (prescribed by the legislation and regulations) as well as *implicit* recommendations put forward in related studies of governments. With this last notion the research note wants to make sure the compliance indices go beyond the 'symbolic compliance' (Guthrie, 2003); that is compliance with the legislation just for the sake of satisfying supervising bodies and without any further use for the governments themselves. The official rhetoric of governmental NPM-reforms often emphasizes issues of increased economy, efficiency, effectiveness, quality, accountability, decentralization and output-orientation. As it is too soon to determine if a certain reform programme is reaching those objectives (Guthrie and English, 2002; Boston, 2000), this research note is premised on the assumption that the implementation of the nine reform elements of local authorities, is the key to realizing those goals. Choosing the appropriate items is one of the greatest problems facing evaluators (Boston, 2000). The selection presents both great opportunities and great dangers (Fitz-Gibbon, 2002) and is considered to be a crucial step in the construction of the compliance indices. So, what this research note is concerned for here is building a strong foundation for the evaluation (Pollitt, 1995).

Accounting index

Inspired by the framework of assertions (Christiaens 1999) as used in an audit-environment a number of elements (i.e. Timeliness, Completeness, Cut-off, Classification, Compensation, Mechanical accuracy, Disclosure, Formalistic requirements, Adequacy & Usefulness) of the *Accounting index* and their method of measurement can be developed. Most elements are measured dichotomously with a score 1 if their are in compliance and a score 0 if not. Some of the elements are measured qualitatively (Ql) or quantitatively (Qt). The source document, necessary to measure the index items, is mainly the annual accounts and in some cases the data can only be collected through a questionnaire. Looking at previous research the accounting index can consist of more than 50 elements.

Management index

Determination of the relevant categories of the Management index and its elements takes place in two steps. The *first* step is a thorough examination of the relevant legislation and related reports and studies. Based on this step a first draft list of possible categories and items is set up. The main source, through which to collect the necessary data for the Management index, is a postal questionnaire. Therefore, in the *second* step, the questionnaire compiled

from the draft list of categories and items is submitted to practitioners in an in-depth interview. The index consists of eight categories, each representing an NPM-reform element: Administrative manual, Long-range planning, Budgeting, Budget responsible, Activity centres, Cost accounting, Management reporting, Internal Audit. Inspired by an exploratory study in Flemish local governments, it is likely that the resulting Management index will consist of more than 40 elements. Most elements are measured qualitatively and dichotomously. Some of the elements are measured quantitatively.

Both the compliance indices can be defined as a simple index, which means that the different elements forming the index have an equal, fixed weight on the index (Ingram 1984). In order to capture the performance better, some studies enlarged the simple index with a variable weighting the underlying elements resulting in a compound index (Robbins and Austin 1986; Ingram and de Jong 1987). However, these studies both revealed no significant different results between the two types of indices. Therefore, this research note prefers to apply the simple index approach (Christiaens (1999); Christiaens and Vanhee (2003)).

4.3 Advantages and limitations of the compliance indices

Advantages

According to Coy *et al.* (1993), the index-methodology allows you to capture the diverse set of reforms into an easily understood indicator. Because NPM reform programmes are mainly multi-faceted, the management index makes it possible to capture the diversity of the reform in a way that it tackles the difficulty of interpreting different items. As a consequence this method avoids the problem of setting up evaluation programmes for each reform-facet of the NPM-reform. Additionally, the index methodology tackles several difficulties that “objective evaluation” is confronted with. According to Pollitt, the most common approach to measure the effects of a reform programme is to compare it with the stated objectives or goals (1995). However, besides the fact that it is too soon to determine if a NPM-reform programme has reached the intended goals, objective evaluation (Chen *et al.*, 2001) has several drawbacks, such as “Objective evaluation is considered to be a black box approach”, “objective evaluation undergoes the absence of reliable benchmarks”, etc. The current research note can conclude that the compliance index is a method that allows to open the black box and tackles the problem of the absence of clear benchmarks.

Limitations of the compliance indices

While constructing the compliance indices the study constantly has to be aware of possible limitations of the indices and try to overcome or limit the impact of those constraints. *Firstly*, according to Andrews (2002) ‘pure’ legal and instrumental compliance has the disadvantage that this method tends to exaggerate the success of a reform. Legal and instrumental compliance does not examine if instruments really takes root in the (financial) management of the organization and thus changes the behaviour in the organization. To overcome this problem the concept ‘compliance’ includes explicit notions of regulation, as well as *implicit* recommendations put forward in related studies of local authorities or international literature. *Secondly*, one could argue that the compliance indices do not cover the factor ‘success’ completely. However, being in compliance with the reformed accounting and management regulations is at least a strict need for achieving a successful reform. *Finally*, another critique or limitation may be the fact that the conceptual idea of the accounting and management index is transferable to another context but the specific framework of the index is not. But, on the other hand, we cannot speak of *the* NPM or NPM as being a uniform global movement and fail to give significant attention to the typical attributes of the organizational and national

contexts in which the NPM-reform is being pursued (Olson *et al.*, 1998; Hooks *et al.*, 2002; Coy and Dixon, 2002).

4. RESEARCH METHODOLOGY

The present study is not set up to explain the reasons of the accounting and management reforms, neither is it an analysis or an appraisal of the impulses or incentives behind the reform. It aims at discussing a tool to explore, describe and compare in an objective way the actual adoption and implementation of accrual accounting and new public management techniques in local authorities. The focus is on finding out, through a cross-sectional study, who, when, how much and to what extent the compliance succeeds. Furthermore, the occurred empirical differences in implementation will be considered and finally the cross-sectional differences will be tested on assumed associations with previously identified factors.

The research project will use two major types of data. The accounting index mainly uses *archival data* (a copy of the annual report, the trial balance and the first balance sheet). The management index mainly uses data acquired by means of *survey* (a postal questionnaire sent to the Local Authority's Treasurer). Following the above-mentioned approach it is likely that a number of data are gathered twice. This should not be seen as redundancy as the combination of several data resources will constitute a test of the convergence of the data, which may improve the validity of the study ("triangulation").

The results of the compliance indices can be analysed from a descriptive and explorative point of view. The analysis is mainly concentrating on the frequencies of the different findings and on characteristics of the local authorities. Apart from the descriptive statistics, significance tests will additionally be performed. In order to test the possible reasons and associations regarding the varying accounting and management practices, an ordinary least squares regression analysis is used. The different determinants are defined and described earlier and the predicted signs are all positive.

5. CONCLUSIONS

Very few studies have empirically examined the adoption and implementation problems of governmental *accounting* reforms, its problems and difficulties in the 'real world' and the reasons for the different outcomes. The research objective in this research note is an attempt to reach a methodology for measuring the reform outcomes from an accounting perspective as well as from a managerial perspective with the help of the index construction methodology. Two indices are constructed. The first index being the *Accounting index* is analogous to previous studies in Belgian governments and measures the level of adoption of the governmental accounting reform. In the second part attention is paid to the construction of a new index, the *Management index*. This index intends to measure the success of the organisational and managerial reform in governments.

As this research note is devoted to the construction phase of compliance indices, it is likely that certain elements of the indices as well as certain hypothesized explaining factors might be adapted in further empirical studies. The research note's intention is to fill the void of evaluative activities in governmental reform and to create a new perspective on evaluation. Furthermore, the study will hopefully lead to a number of improvements and spin-offs. First of all, the study aims to provide insights relevant to practice. A better understanding of the practical adoption problems and results can be used as feedback to standard-setters, which

cope with other ongoing or forthcoming accounting and management reforms in governmental and non-profit organisations. Secondly, the study will hopefully facilitate an appraisal of the usefulness of the reform to users. Their needs (education, training, follow-up, assistance, internal audit,...) in the accounting and management system will hopefully become clearer. This study will try to offer a contribution in the ongoing to open up new horizons in the user perspective.

Notes

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Tables and figures

Table 1: A comparison between NPM and the Flemish local government reform

<i>Local government reform elements</i>	<i>NPM doctrines</i>						
	<i>Divisionalization⁸</i>	<i>Competitive Attitude⁹</i>	<i>Private-sector management styles</i>	<i>Discipline in resource use</i>	<i>Visible hands-on management¹⁰</i>	<i>Measurable standards and measures of performance and success</i>	<i>Greater stress on results</i>
<p>Accrual accounting: a move away from cash-based accounting to ‘business-like’ accrual accounting.</p> <p>Administrative manual: mapping the administrative organisation (departments, functions, guidelines and procedures) to optimise the administrative organisation and the internal control system.</p> <p>Long-range planning: consists of a strategic and financial note over a time span of minimum 3 to maximum 6 years.</p> <p>Budgeting: from incremental budgeting to zero-based budgeting.</p> <p>Budget responsible: the possibility to delegate the authority to civil servants to manage an output-oriented budget</p> <p>Activity centres: business units or economic entities responsible for internal services. Each activity centre has to produce a separate balance sheet and P/L account.</p> <p>Cost accounting: more stress on identifying costs and understanding cost structures of activity centres or departments.</p> <p>Management reporting: responsibilities and output-oriented budgets are monitored by means of quarterly reports.</p> <p>Internal and external audit: internal audit consists of legality- and VFM-audit. External audit is limited to financial audit.</p>	✓	✓	✓	✓	✓	✓	✓

Figure 1: Research framework

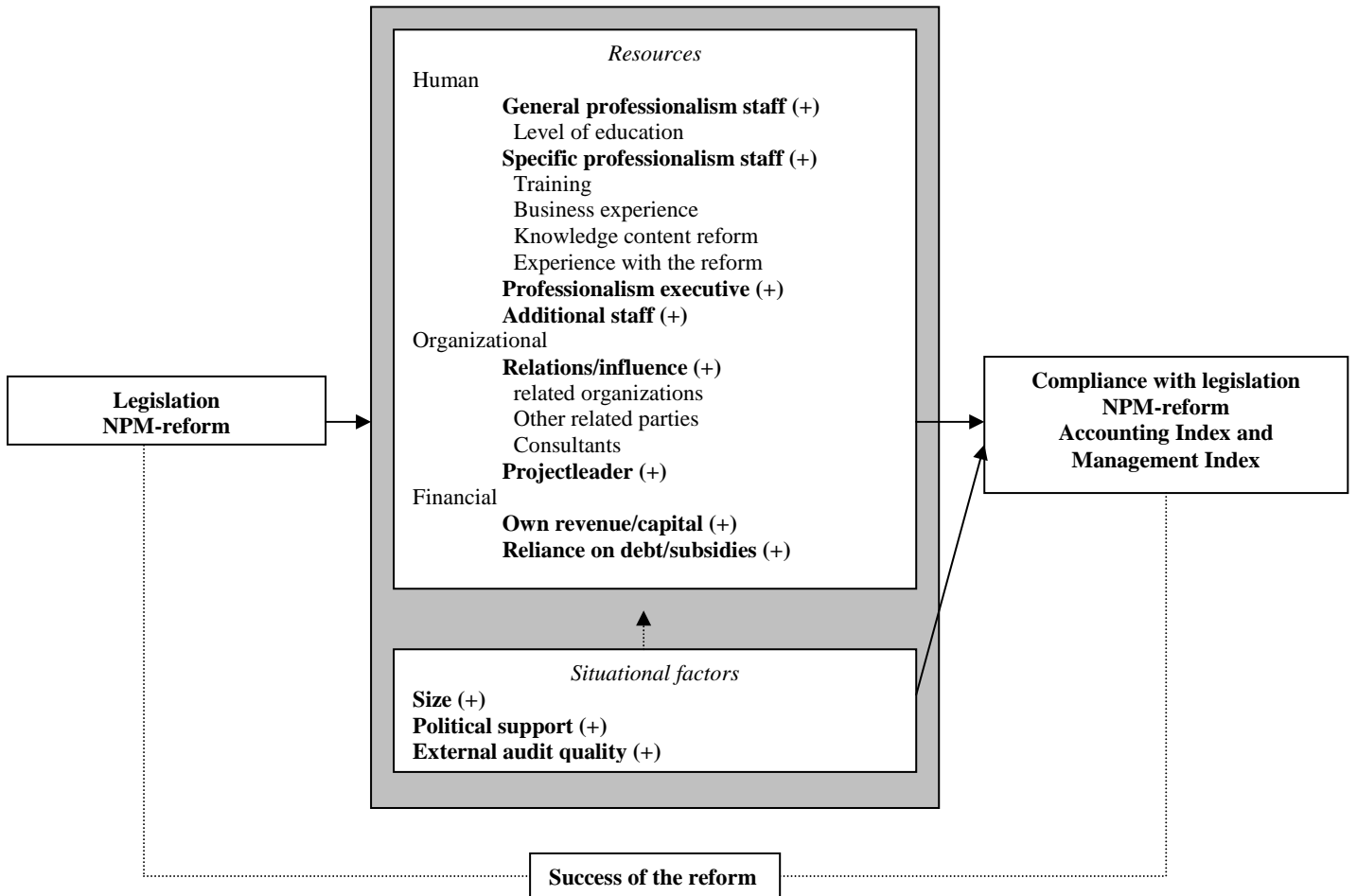


Table 2

Measurement objectives of index construction methods in government studies

Goal	Studies
Disclosure index Concentrating on what is shown and how it is shown	* Robins & Austin (1986) * Giroux (1989)
Disclosure index Which accounting practice is used and thus disclosed	* Ingram (1984) * Banker et al. (1989) * Cheng (1992) * Allen and Sanders (1994)
Accountability index Index that measures the quality of an annual report from a public accountability perspective	* Dixon, Coy & Tower (1991) * Coy, Tower & Dixon (1993) * Coy, Tower & Dixon (1994) * Coy & Dixon (2002)
Conformance indicator Meeting GAAP or GAAFR requirements	* Evans & Patton (1983) * Evans & Patton (1987) * Baber & Sen (1984)
Compliance index (Accounting index) Meeting the governmental accounting legislation as a means to measure the success of reform programmes	* Christiaens (1999) * Christiaens & Vanhee (2003) * Current research note
Extension Compliance index (Management index) Meeting the organizational and managerial legislation as a means to measure the success of reform programmes	* Current research note