

A public administration view on SDI performance

Lessons from e-government

Glenn Vancauwenberghe

Geert Bouckaert

K.U.Leuven, Public Management Institute

Outline



1. Problem statement
2. Performance in public administration
3. Performance in e-government
4. Lessons for SDI performance

1. Problem statement



The measurement and management of SDI performance is a key debate among SDI researchers & practitioners

Many researchers have tried to assess SDIs, which resulted in a large collection of frameworks, models and approaches

Despite all these valuable efforts, there still is a lack of consistent treatment.

There is need for clarification of performance and how to measure and manage

Public administration & e-government (literature & practice) have to deal with the same problem

→ A good starting point for analyzing SDI performance?

2. Performance in public administration



Bouckaert & Halligan (2008). *Managing performance*.
'What is public sector performance?'

Different meanings of performance:

1. There are different performances according to the range of disciplines: psychology, social sciences, managerial sciences use different definitions.
2. There are different performances within one discipline: although performance has always been a central issue in public management, there is no consensus on the meaning of the concept

To create some clarity, a distinction can be made between

- *the span of performance*
- *the depth of performance*

Span of performance



Horizontal dimension of performance

Refers to performance in terms of

1. **inputs** that are processed in **activities**,
2. these activities result in **outputs** (*products or services*)
3. which finally (should) lead to certain **outcomes**

For the public sector outputs are never an end to themselves;
the primary criterion in assessing public sector performance is the
outcome

Basic model can be extended/adjusted:

‘outcome short term vs outcome long term’, ‘impact’, ‘trust’, ...

Span of performance



Based on input – output - outcome, several ratios can be determined:

- *Economy*
amount of inputs used
- *Productivity*
amount of output for each unit of input
- **Efficiency**
ratio of inputs/outputs
- **Effectiveness**
fit between actual outputs and objectives

Depth of performance



Vertical dimension of performance

Performance can be measured and managed at different levels

The depth of performance includes a micro, a meso and a macro level:

- *Micro performance* is at the level of an individual organisation
- *Meso performance* is at the level of a certain policy
- *Macro performance* is government wide

Again: certain variations possible

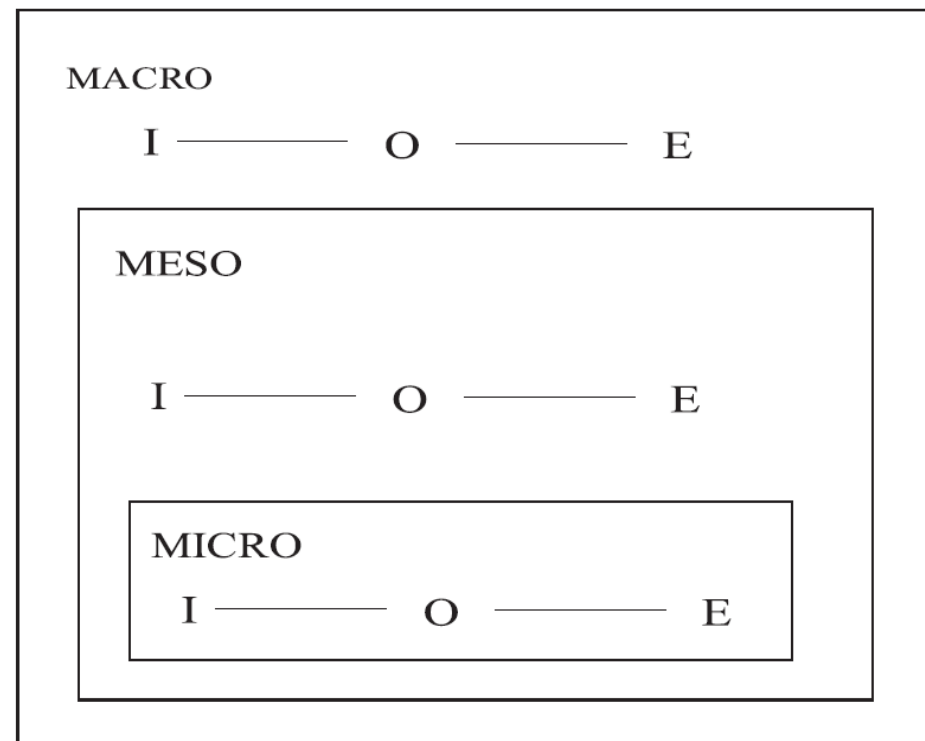
e.g. Talbot (2005) refers to individual level (HRM), next to the organisational performance and policy performance

Depth of performance



Apply the input – output – outcome scheme at the three levels of an individual organisation, a policy field and the consolidated government-wide level

Need to match input, activities, output and outcome/effects at micro, meso, and macro level



3. Performance in e-government



Electronic public administration: ‘E-government is essentially ICT support. E-government does not produce outputs that are significantly different from those produced and delivered in a traditional way’

In a certain way traditional ‘public administration performance models’ can be adapted & adjusted

Distinction between depth of performance & span of performance can be useful in the context of e-government

Span of performance



Most of the adjustments made in e-government literature are related to the operationalisation of the horizontal dimension of performance.

No clear consensus of what terms like input, output and outcome mean in the context of e-government

1. How to define the output of e-government?
Number of online services? Or number of times these services are used?
2. How to disentangle the outcome of e-government from the effects of other activities and their output?
3. How to deal with innovative/transformational aspects of e-government?

'Benchmarking e-government' (Heeks, 2008)



Four phases in e-government development

- Readiness
- Availability
- Use
- Impact

Focus in benchmark studies is changing from readiness and availability to use and impact

Phases can be linked to input – output – outcome

Need to incorporate more downstream measurements (output/impact):
contribution of e-government to more general policy goals

eGEP Measurement Framework (2006)



eGEP = eGovernment Economics Project
(eGovernment Unit – European Commission)

In-depth & comparative analysis of existing measurement methods:

“While national peculiarities and strategic priorities shape the more relevant differences, some common ground can be found amongst them”

Framework built on three areas of impact:

- efficiency: financial and organisational value
- effectiveness: public value
- democracy: political value

Depth of performance



Homburg (2008)

Macro level - Sector level - Organisational level - Stakeholder level - ***Application level***

Extra attention to ‘administrative levels’: e.g. Heeks (2006)

- We can categorise at least five potential levels of e-government: international – national – regional – state/provincial – local
- Most e-government studies focus on national e-government
- National level not always most relevant/most innovative level

Essential to incorporate appropriate levels of e-government in performance measurement, or **all** levels of e-government

4. Lessons for SDI



Both the public management literature in general as the e-government literature in particular can contribute to a better understanding of SDI and SDI performance.

We may not neglect the specific characteristics of SDI and SDI assessment

- traditional models and frameworks adjusted in the context of e-government
- adjustments needed in the context of SDI

Valuable to think about SDI performance in terms of ‘span of performance’ and ‘depth of performance’

Span of performance



‘Performance’ of SDI is defined/measured in various ways:

- Presence of metadata, services, coordination structures, regulations, ...
- Availability of geographic data
- Use of these geographic data
- ...

Thinking in terms of ‘input – output – outcome’ to create some clarity

- Input: technological and non-technological components
- Output: access, use and exchange of geographic data
- Outcome (short term): contribution of these data to the performance of business process

Most important (from a public administration perspective):

Contribution to the performance of government/governance

- Improved service delivery?
- Improved policy making?

Depth of performance



Development of spatial data infrastructures affects several levels of public administration:

- individual – application - organisational – policy – government wide ...
- local – state/provincial – regional – national – international

Complex horizontal and vertical interactions between different levels of SDI
→ crucial aspect in successful SDI development
→ crucial aspect in SDI performance

So it is recommended

- To measure and manage SDI performance at all relevant levels.
- To bring into account that these levels are linked to each other

More information



Glenn Vancauwenberghe

Parkstraat 45 bus 3609

B-3000 Leuven

0032 16 32 34 58

glenn.vancauwenberghe@soc.kuleuven.be

www.spatialist.be

References



Bouckaert, G. & Halligan, J. (2008). *Managing Performance: International Comparisons*. London: Routledge.

Codagnone, C. & Boccardelli, P. (2006). *Measurement Framework Final Version, eGovernment Economics Project*. Rome: eGEP Consortium.

Heeks, R. (2006). *Benchmarking eGovernment: Improving the National and International Measurement, Evaluation and Comparison of eGovernment*. iGovernment Working Paper No. 18. Manchester: University of Manchester.

Homburg, V. (2008). *Understanding E-Government. Information systems in public administration*. London: Routledge.

Talbot, C. (2005). *Performance Management*. In: E. Ferlie, L. Jr. Lynn, & Ch. Pollit (Eds.) *The Oxford Handbook of Public Management*. Oxford: Oxford University Press, pp. 491-517.