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## Institutional isomorphism, policy networks, and the analytical depreciation of measurement indicators: The case of the EU e-government benchmarking



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#### ABSTRACT

This article discusses the socio-political dimension of measurement in the context of benchmarking e-government within the European Union's Open Method of Coordination. It provides empirical evidence of how this has resulted in institutional isomorphism within the self-referential policy network community involved in the benchmarking process. It argues that the policy prominence retained by supply-side benchmarking of e-government has probably indirectly limited efforts made to measure and evaluate more tangible impacts. High scores in EU benchmarking have contributed to increasing the *institutionally-perceived quality* but not necessarily the *real quality and utility* of e-government services. The article concludes by outlining implications for policy and practical recommendations for filling the gaps identified in measurement and evaluation of e-government. It proposes a more comprehensive policy benchmarking framework, which aims to ensure a gradual improvement in measurement activities with indicators that reflect and follow the pace of change, align measurement activities to evaluation needs and, eventually, reduce measurement error.

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#### 1. Introduction

The beginning of e-government is often placed between 1995 and the late 1990s (Grönlund & Horan, 2004, p. 714; Kumar, Mukerji, Butt, & Persaud, 2007, p. 63). After about two decades of activity, supply-side benchmarking of the availability of broadly-defined e-government services show that governments worldwide have made considerable efforts

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and brought online all sorts of services, applications, consultation platforms, etc. (Accenture, 2003, 2004, 2007; Capgemini, 2005, 2006, 2007, 2009, 2010a, 2012b, 2012c; Capgemini Ernst & Young, 2001, 2002, 2003a, 2003b; United Nations, 2001, 2003, 2005, 2008, 2010, 2012; West, 2004, 2005, 2007). In the period 1999–2001, many stage models² positing a linear progress from information to transaction/interaction informed benchmarking and pushed governments to follow this logic in order to improve their ranking in these international 'competitions'. There are indications that this was an expensive process. According to data reported by WITSA (2010),³ for instance, it can be estimated that between 2003 and 2012, general public administrations (net of health, education, and defence sectors) in the 27 Member States of the European Union (EU) spent €756 billion on Information and Communication Technology (ICT). In the context of having to allocate shrinking public funds to competing needs, it was both normatively and pragmatically desirable to account for whether money spent on e-government produced worthwhile public value.

However, robust evidence which demonstrates tangible impacts that can be causally attributed to the efforts and money spent on bringing public services online is still largely lacking. A review of e-government research articles published between 2003 and 2009 identified only 55 studies of e-government impacts (Andersen et al., 2010). Almost none of these rigorously document a causal relation between e-government and the reported impacts. Many are based simply on reports on respondents' own activities from non-representative self-selected samples. Likewise, despite having declared in the Manchester Ministerial Declaration on e-government of November 2005<sup>5</sup> and the 2006 e-government action plan (European Commission, 2006) a commitment to 'making efficiency and effectiveness a reality' and to documenting e-government impacts, the European Commission (EC) and the EU Member States have so far produced only self-reported and empirically non-documented information about these impacts. Only a handful of studies present a quasi-experimental counterfactual demonstration of e-government impacts (Misuraca, Codagnone, & Rossel, 2013). This situation warrants making an analogy with the well-known 'IT Productivity Paradox' to advance the hypothesis that we are facing an 'E-government Paradox' (Misuraca et al., 2013, pp. S73-S74). There is a gap between, on the one hand, the extensive measurement data gathered on the availability and sophistication of online public services, and on the other, the limited measurement data and evaluation evidence of the impacts that this availability and sophistication have had so far in terms of benefits for citizens, businesses, the public sector, the economy and society as a whole. The 'IT Productivity Paradox' was explained in terms of several factors including 'measurement errors' and was later partly overcome through improvement in the quality of measurement data. As regards the scarce evidence of the impacts of e-government, we would argue that, the problem lies in the lack of relevant and valid measurements rather than in 'measurement error'.

This article, however, takes the lack of impact evaluation measurement data and evidence simply as a starting point which we have documented elsewhere (Misuraca et al., 2013). We focus instead on the socio-political process, explaining first the consolidation and later the enduring policy relevance that supply-side e-government measurements have retained despite their clear analytical depreciation and lack of utility for a truly scientific impact evaluation. At face value and in a frictionless world, measurement can be interpreted as being merely the technical operation of 'counting' the objectivelydefined attributes of a given phenomenon. In practice, measurement is not a neutral activity and entails a complex threefold 'agenda': (1) technical: (2) analytical: and (3) socio-political (Van Dooren, 2009). The technical agenda is mostly about the reliability of measures, which is also closely related to the feasibility of data gathering, ensuring stable and repeated measurements. The analytical agenda concerns the validity of indicators as measures that reduce complexity but nonetheless reflects the essence of the object being measured, thus, reducing systematic measurement errors. The sociopolitical dimension of measurement entails several issues such as: (a) the agreement among a set of involved stakeholders on what to measure and why; (b) the socially- and politically-embedded definition of the measurement classifications and categories; (c) the political and social reaction to, and interpretation of, the measured indicators and, last but not least, (d) the social mechanisms through which measures become institutionalised. Although the three agendas can be distinguished conceptually, in practice they are closely entwined and should be coupled. However, technical feasibility and socio-political considerations are often decoupled from the analytical agenda, which leads to a focus on the early and easy parts of an intervention and produces a trivialisation of measurement. Measurement and evaluation are distinct activities, but the latter rests on the former. They should at least have the same basic logic model in common (Hills, 1995), otherwise measurement will not support impact evaluation.

More specifically, we use EU e-government benchmarking as strategic research material and the instrument for our theoretically-driven and empirically-documented claims. Concretely, we argue and document that supply-side benchmarking was taken for granted and retained prominence despite its lack of validity as a result of a process of institutional isomorphism. In the EU context, this was further reinforced within the self-referential policy network community involved

<sup>&</sup>lt;sup>2</sup> For a systematic analysis of such models see Lee (2010).

<sup>&</sup>lt;sup>3</sup> World Information Technology and Service Alliance (http://witsa.org/witsa-wp-site/) produces annually supply side (using vendors as source) quantification of total ICT outlays both for government as a whole and for some of its verticals (i.e. health, education, public administration, etc.). In the 2010 edition data are reported from 2000 to 2013 (2011–2013 data are estimates). This data, however, is a proxy and does not provide data on e-government specific outlays as distinct from general ICT expenditure.

<sup>&</sup>lt;sup>4</sup> The authors of the review clarify transparently that they included 'research findings in which a certain effect is attributed to e-government even when the causal relationship cannot be demonstrated with precision' (Andersen et al., 2010, p. 565).

<sup>&</sup>lt;sup>5</sup> For a review of e-government Ministerial declarations from 2001 to 2009 see Broster, Misuraca, & Bacigalupo (2011).

<sup>&</sup>lt;sup>6</sup> See for instance the progress report on the 2006 action plan (TNO & DTI, 2009) and the current scoreboard developed for the evaluation of the new 2010 e-government action plan targets (available at: http://www.egovap-evaluation.eu/dashboard2.php) also based mostly on self-reports.

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