

Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

# Structural Change and Economic Dynamics

journal homepage: [www.elsevier.com/locate/sced](http://www.elsevier.com/locate/sced)

## Public sector innovation—From theory to measurement<sup>☆</sup>

Carter Bloch<sup>a,\*</sup>, Markus M. Bugge<sup>b</sup>

<sup>a</sup> The Danish Centre for Studies in Research and Research Policy, Department of Political Science and Government, Aarhus University, Bartholins Allé 7, 8000 Aarhus C, Denmark

<sup>b</sup> NIFU Nordic Institute for Studies in Innovation, Research and Education, P.O. Box 5183, Majorstuen, N-0302 Oslo, Norway

### ARTICLE INFO

#### Article history:

Received October 2012

Received in revised form May 2013

Accepted June 2013

Available online 10 July 2013

#### Keywords:

Innovation

Public sector

Innovation indicators

Measurement

### ABSTRACT

While there is growing awareness that much innovation currently takes place in the public sector, it is also recognised that more systematic efforts to promote innovation are needed to address the economic and societal challenges that public sectors face. However, there is a lack of a common understanding of what public sector innovation is and a lack of a measurement framework that can shed light on innovation processes in public sector organisations. Based on insights generated in a recent Nordic pilot study, this paper seeks to contribute to fill this gap. The paper discusses how public sector innovation can be captured and to what extent measurement can be based on frameworks originally developed in a private sector context. While there are important differences between the public and the private sector that should be reflected in a measurement framework, there is also considerable common ground that can be drawn upon.

© 2013 Elsevier B.V. All rights reserved.

## 1. Introduction

While there is a growing awareness that much innovation currently takes place in the public sector, it is also recognised that more systematic efforts to promote innovation will be needed to maintain high levels of welfare services and help address the economic and societal challenges that public sectors face (Borins, 2001; Koch

and Hauknes, 2005; Eggers and Singh, 2009; European Commission, 2011). However, there is still a lack of an adequate framework for understanding and measuring innovation in the public sector (Koch and Hauknes, 2005). Based on the insights generated in a Nordic pilot study on the development of a measurement framework for innovation in the public sector, this paper seeks to contribute towards filling this gap.

Studies of innovation in private companies have greatly improved our understanding of the processes underlying innovation and social and economic change in modern economies. However, there has been a tendency to consider the public sector as something quite different from the private sector in terms of innovation, often stemming from a perception of the public sector as providing a regulatory framework for innovation in the private sector, and as a passive recipient of innovations from the private sector (Windrum, 2008). Although the public sector can be attributed important innovative breakthroughs like the internet, public sector institutions have often been seen as conservative and bureaucratic. Literature on public sector innovation has so far been scarce (Mulgan and

<sup>☆</sup> This paper builds on the work of the MEPIN project (Measuring Public Innovation in the Nordic Countries). We are grateful for the work and results produced through the MEPIN pilot studies conducted by RANNIS (Þorsteinn Gunnarsson), Statistics Finland (Mikael Åkerblom, Mervi Niemi and Ari Leppälähti), Statistics Norway (Frank Foyen and Lars Wilhelmsen), Statistics Denmark (Helle Månsson) and Statistics Sweden (Roger Björkbacka and Per Annerstedt). The paper has also benefitted from inputs and comments by participants in the conference on “Innovation in the public sector and the development of e-services” in Urbino, Italy, April 19–20 2012. The authors would also like to thank the two anonymous referees for their constructive comments on the paper. The usual disclaimer applies.

\* Corresponding author. Tel.: +45 87165901.

E-mail address: [carter.bloch@cfa.au.dk](mailto:carter.bloch@cfa.au.dk) (C. Bloch).

Albury, 2003; Bommert, 2010), though it appears to have been growing in recent years.<sup>1</sup> Still, work on public sector innovation from related disciplines can be used to help form a theoretical framework for public sector innovation. Research on service innovation and systems of innovation will therefore be used as a backdrop for the discussions on how innovation can be measured in the public sector. The paper also draws on Gallouj and Djellal (2010)'s typology of demarcation, assimilation and integration, which was originally developed to discuss the relationship between innovation in manufacturing and services, as a starting point for considering whether innovation in the public sector can be measured with the same framework as for innovation in the private sector. To what extent is innovation in the public sector similar to innovation in the private sector, and where is it different? Is it possible to develop a new joint approach to innovation across the public and private sectors?

The need for measures of public sector innovation has been stressed in a number of countries and in international organisations such as the OECD and the EU.<sup>2</sup> This paper addresses the need for systematic data, discussing the development of a theoretical framework and indicators for measuring innovation in the public sector. More specifically, the paper examines the following questions: First, what characterises innovation in the public sector? Second, what conceptual framework should be employed to guide the measurement of public sector innovation? Third, what approach should be used for measurement? The discussion will be based on an examination of the results from the recent pilot study Measuring Public Sector Innovation in the Nordic countries (MEPIN).

The paper is structured as follows: Section 2 outlines a theoretical basis for understanding innovation in the public sector. Section 3 discusses some central notions concerning the public sector and their implications for measurement of innovation. Section 4 briefly presents the structure of the Nordic pilot study and its methodology. Section 5 discusses the results of the MEPIN study. Finally, Section 6 concludes and presents some avenues for future research.

## 2. Theoretical underpinnings of public sector innovation

So far there is a limited theoretical literature that focuses specifically on public sector innovation (Mulgan and Albury, 2003; Bommert, 2010). Furthermore, much of the existing work is not based on empirical investigations. However, despite the scarcity of literature on innovation in the public sector, the insights derived from other strands of theory may be relevant and help shape thinking about public sector innovation (Koch and Hauknes, 2005). Three areas are important towards forming an understanding of how public sector organisations innovate: the nature of public

services themselves, the context that public sector organisations operate within, and the interfaces with other actors both within and beyond the public sector.

### 2.1. Innovation in services

The majority of modern economies are constituted by services (Miles, 2005; Gallouj and Djellal, 2010). Services can typically be characterised by intangibility,<sup>3</sup> simultaneity of consumption and production, and customisation to the individual client or user. These characteristics may influence both how organisations innovate and also how innovation can be measured.

However, there is a great variety of activities within services (Tether and Hipp, 2002; Tether, 2003; Miles, 2005), and they may not always be easy to isolate or distinguish from other (economic) activities (Gallouj and Weinstein, 1997). Services have traditionally been seen as subordinate to goods, in part due to a perceived lack of ability for up-scaling of analogue services. However, digitisation of services greatly enhances the possibilities for up-scaling and growth. Services may also add value to or constitute the main source of value in goods (Gallouj and Djellal, 2010), e.g. the design of fashion clothing.

The complex relationship between goods and services may also be paralleled by a similarly interwoven relationship between gradual improvements and radical breakthroughs. Arguments have been made that small, incremental changes have an important role for service innovation, both for the private and public sector. Recent case studies in health care examine the importance of incremental, and in some cases unintentional, changes for innovation in the public sector (Fuglsang, 2010; Fuglsang and Sørensen, 2011). In these studies, event-based, informal, disorganised day-to-day-practices of problem-solving and ad-hoc adjustments are contrasted with other forms of more deliberate, formal, radical and systematic change processes. Whereas it is easier to identify intended, formalised and well-defined change activities as innovations, the more incremental “bricolage” activities may similarly also add up to innovations over time. In both types of change, the structure of the services is changed in a reproducible way. However, it is emphasised that there is a challenge to acknowledge and to link the bricolage activities with more systematic innovation activities.

### 2.2. Public sector and innovation systems

Literature on the systemic nature of innovation comprises various perspectives and traditions such as the learning economy (Lundvall and Johnson, 1994), national innovation systems (Lundvall, 1992; Nelson, 1993), regional innovation systems (Cooke, 1992; Asheim and Isaksen, 1997), technological innovation systems (Teece, 1996), sectoral innovation systems (Breschi and Malerba, 1997), industrial districts (Marshall, 1890), clusters (Porter,

<sup>1</sup> Examples here are Osborne and Brown (2011), Fernandez and Pitts (2011) and Salge and Vera (2012).

<sup>2</sup> See e.g. OECD (2010), European Commission (2010), Danish Agency for Science, Technology and Innovation (2008), UK Department of Business (2008).

<sup>3</sup> Though, this is not always the case. For example, some services are in fact tangible where production and consumption can be separated, e.g. IT, public libraries, parks, hospitals, and environmental services.

Download English Version:

<https://daneshyari.com/en/article/7388802>

Download Persian Version:

<https://daneshyari.com/article/7388802>

[Daneshyari.com](https://daneshyari.com)