



The clash of managerial and professional logics in public procurement: Implications for innovation in the health-care sector

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ABSTRACT

This article addresses the enactment of public procurement and its influence on adoption and diffusion of innovation, using a case study of public procurement of a low-tech medical device innovation in Swedish healthcare. Based on interviews and documentation, the article illustrates the various perspectives of the different professions involved in the complex task of setting the requirement specification for the tender. The technology identities of the medical device (innovation) are constructed and negotiated by the actors: procurement administrators, health-care professionals and suppliers within the adoption space. Examining the enactment of the procurement process as part of the adoption space is a way to deepen our understanding of the social component within public procurement.

1. Introduction

This paper concerns the public procurement process and the social forces governing it in relation to the adoption and diffusion of a medical device into the Swedish health-care system. Increasing costs for health-care services, in combination with aging populations throughout the world, create a growing call for a more efficient health-care sector (Ekholm & Markovic, 2012; Wanless, 2002). Another challenge for modern healthcare is the increasing resistance to antibiotics, which is also a growing public health threat (Deptuła, Trejnowska, Ozorowski, & Hryniewicz, 2015). To meet these challenges, innovation is needed (Ekholm & Markovic, 2012).

However, the rate of successful implementation of innovation in the health-care setting is slow. It takes an average of 17 years before research findings are implemented (Morris, Wooding, & Grant, 2011). In accordance with Schumpeter (as cited in Fagerberg, 2005), innovation in this paper refers to new combinations of existing resources and knowledge classified as product, process, or organizational innovation that are implemented in practice. Rogers (2003) described the diffusion of innovation as hitting different segments of the audience at different points in time. The adoption of innovation at the individual level does not always correspond to the adoption decision at the organizational level (Rogers, 2003). One issue to address so as to use new knowledge more efficiently is to better understand the receiving organizational

context – that is, the organization where innovation is expected to be adopted, diffused, and disseminated (Fitzgerald, Ferlie, Wood, & Hawkins, 2002; Pettigrew, Ferlie, & McKee, 1992; Roback, 2006). Better understanding is required about the local conditions and the needs of the target customer organization – in this case, at the levels of the national and regional health-care systems, as well as particular hospitals and clinics. How the purchases of products and services are carried out is one dimension of the receiving context. In public health-care organizations in Sweden, purchases are accomplished through public procurement. Therefore, it is a prerequisite for a new medical device, an innovation, to pass through the procurement process so as to gain entry into the supply chain, and it is the first step to be adopted by a health-care organization. Then it may be further diffused in the sector and ultimately reach end users, who predominantly are physicians and their patients.

In the literature on barriers to innovation through public procurement, there is, however, a limited understanding of the enactment (i.e. the process where someone's interests win over those of others and one of several possibilities becomes realized; see Mørk, Hoholm, & Aanestad, 2006, p. 445) of public procurement and the social forces governing it in relation to innovation diffusion. The negotiated logics between health-care professionals and administrators governing the health-care sector has previously been discussed (e.g. Arman, Liff, & Wikström, 2014; Kristiansen, Obstfelder, & Lotherington, 2015), and

Abbreviations: EBM, evidence based medicine; HTA, health technology assessment; PCP, pre-commercial procurement

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the interfering logic of politicians has also been addressed (e.g. Blomqvist, 2007; Nicolini, 2010).

When the conflicting logics and social forces are recognized as important phenomena to improve understanding of the health-care sector as a whole, these aspects could very likely be important for understanding public procurement in the health-care sector as well. Public procurement is the most important demand-side policy instrument used to obtain large-scale diffusion of a technical innovation in publicly governed agencies, such as the actors in the Swedish health-care system. It has also been identified as a key policy instrument for sustainable growth in the European Union (European Commission, 2010).

The significance of the social dimension of public procurement has been highlighted by Uyarra, Flanagan, Magro, and Zabala-Turriagoitia (2017), who introduced the idea of “conversations” and incorporated place sensitivity into the debate on public procurement for innovation. Exogenous components such as regular and judicial aspects are often taken into account, whereas endogenous institutions are easily overlooked. Rolfstam, Phillips, and Bakker (2011) emphasized the importance of the involvement of endogenous institutions in the public procurement of innovation so as to coordinate diffusion.

The aim of this paper is to expand the understanding of public procurement that is enacted and how social forces governing the procurement process influence innovation diffusion in the Swedish health-care system. Theoretically, we draw on innovation diffusion theory (Rogers, 2003). The concept of innovation is used to denote a new medical device – the proliferation of which is described in Section 4. The paper is less concerned with the (technical) change within the product that makes it an innovation; rather, it focuses on what happens when the innovation is diffused (Cohen & Levinthal, 1990; Rogers, 2003). We use the metaphorical lenses of the social construction of technology (Pinch & Bijker, 1984) and the social construction of health technologies as well as sociotechnical influences on the adoption of medical devices (Ulucanlar, Faulkner, Peirce, & Elwyn, 2013). Empirically, we use an explorative case study of an incremental innovation of a medical device entering the public procurement process in nine different counties in Sweden (five of these were consolidated into one procurement process), where laws and regulations regarding public procurement are based on European legislation (Directives 2014/24/EU of the European Parliament). The Swedish Public Procurement Act (SFS 2016:1145 LOU) is generally aligned with the EU legislation. However, for procurement below certain thresholds (i.e. given amounts) national legislation, not governed by the EU directive, is applicable.

The empirical findings illustrate the social aspects of an innovation’s journey into the public procurement process. Waldorff (2013) showed that different actors give different meanings to the health-care sector concept. This paper illustrates a similar process for the social constructions of the identity of a medical device and shows that these constructions have an effect on innovation diffusion through public procurement. This makes the study especially relevant for those interested in medical device innovation for the European market.

In the next section (2), we introduce key findings from the existing literature on medical technology innovation in healthcare and public procurement. Next (3), we present the research design and methodology. Then (4) we describe the case and the empirical setting. Finally, we discuss the findings (5) and put forward the contributions (6) of the paper, as well as its practical implications.

2. Literature review and theoretical framework

The theoretical framework of this paper consists of three areas of research. To frame the topic, we provide a brief overview of earlier literature on innovation in healthcare and combine that with the direct and indirect impact on innovation through public procurement. Then we draw on earlier ideas about the sociotechnical aspects of innovation to use as a lens through which to examine the diffusion of innovation.

2.1. Innovation in healthcare

Health-care innovation is developed from a highly distributed competence base, and it can be described as “a complex bundle of new clinical services and medical technologies” (Consoli & Mina, 2009, p. 297). In this era of evidence-based medicine (EBM), modern healthcare is highly focused on evidence. This is also reflected in a demand for evidence-based innovation (Berwick, 2003; Herzlinger, 2006). The question of evidence needs to be taken into account for innovators addressing health-care applications so as to build trustworthiness and legitimacy (Herzlinger, 2006). Although evidence is both asked for and desirable owing to laws and regulations, namely, at the exogenous level, the perceptions and trust in clinical evidence presented (or not presented) in the specific case is socially influenced, namely, at the endogenous level. Adoption decisions in health-care organizations are clearly cases of ambiguity and complexity.

The boundaries between professional groups within healthcare may greatly influence the diffusion process in the organization (Fitzgerald et al., 2002). It is important to consider that not all actors involved in adoption decisions at the organizational level are health-care professionals. Other players such as economists and administrators (procurers) manage purchases and thereby related procurements. The inertia of strong professional groups and the propensity to hinder the dissemination of knowledge from externally oriented sources are established phenomena (Nicolini, 2010). The goals of the health-care sector are often defined by politicians, and a large share of the business is financed by public funds (Blomqvist, 2007). Simultaneously, the governance of the health-care system is influenced by other forces such as the national economy, the actions of health-care personnel, medical science, and patients’ expectations and demands. Blomqvist (2007) emphasized that organizations in the health-care sector are managed through complex interactions involving three different power groups – namely, politicians, administrators, and health-care professionals (e.g. physicians, nurses). All three groups are of interest in the study of how innovation spreads and diffuses within the sector.

The rigid logic of EBM and health technology assessment (HTA), which are applied and asked for at the policy level before something new is introduced in routine care, leads to failure in the endeavor to fulfill the objectives of the rational adoption of technologies in healthcare (Herzlinger, 2006; Rolfstam et al., 2011; Ulucanlar et al., 2013). Public procurement is one example of how policies are put into practice and how customers, policy, and accountability merge. In the publicly financed health-care system in Sweden, decisions at the policy level directly impact which technologies are available in routine care.

Public procurement is an important mechanism linked to the adoption of innovation at the organization level, as it is the way into the supply chain of goods in public organizations. Previous research on a silver-coated urinary catheter in the United Kingdom (an example reminiscent of the product we have followed in Sweden) showed that “institutions and institutional coordination affect the adoption and diffusion of innovation” (Rolfstam et al., 2011, p. 452). Institutional barriers were identified to be price, agreements with suppliers of current technology, de-spending, silo budgeting, a decentralized decision structure, a missing technology champion, organized skepticism among health-care professionals, and problems with demonstrating the value of an innovation. The importance of endogenous institutions in the adoption and diffusion of innovation has previously been emphasized (Rolfstam et al., 2011).

2.2. Innovation and public procurement

Procurement refers to the activity of purchasing goods and services from an outside body. When the purchasing unit is part of the public sector, public procurement occurs (Arrowsmith, 2005 as cited in Rolfstam, 2013). In this paper, we focus on the procurement of standardized products serving a generic market, where the purchasing agency

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