



Robust relation between public procurement for innovation and economic development

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ARTICLE INFO

Article history:

Received 27 August 2021

Received in revised form 13 December 2021

Accepted 15 December 2021

Available online 24 December 2021

JEL classification:

O38

O47

O57

Keywords:

Public procurement for innovation

Productivity

Innovation

Cross-country comparisons

ABSTRACT

We found a solid and robust relationship between the share of public procurement for innovation (PPI) in public procurement and GDP per capita for 30 European countries. The share of PPI is highly associated with determinants from “demand pull” as well as “supply push”. These findings open new opportunities for the study of the drivers of public procurement for innovation. The study also provides a new methodology for benchmarking.

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1. Introduction

Public procurement for innovation (PPI) is increasingly used by governments to stimulate innovation. Under certain circumstances, “demand pull” instruments such as PPI can more effectively promote the development and diffusion of innovations than “supply-push” policies (Borrás and Edquist, 2013). In particular, PPI can be a source for the development of new processes and products (Von Hippel, 2017).

In this paper, PPI includes both the procurement of R&D services and the procurement of innovative solutions (Kundu et al., 2020). R&D procurement consists in the acquisition of R&D services aimed at the emergence of solutions (products, services or processes) that do not yet exist. One form of R&D procurement is pre-commercial procurement (PCP), an instrument developed by the European Commission that follows a model in which several suppliers develop innovative solutions in a competitive phased process where the results and benefits are shared between the contracting entity and the providers (Apostol, 2017). The public procurement of innovative solutions (PPIS), on the other hand,

consists in the acquisition of innovative solution already created by others that are in the market or very close to commercialization. In this case, the public purchaser acts as the first user and acquires a product, service or process that is new to the market or contains substantially new characteristics. The literature recognizes the differences between these forms of PPI and of their potential effects on innovation, namely highlighting the fact that R&D procurement in general (and PCP in particular) can act both as a demand-side and a supply-side instrument (Apostol, 2017; Rigby, 2016).

In this context, the European Commission has set ambitious targets for PPI to become 20% of public procurement (3% for R&D procurement and 17% for public procurement of innovative solutions), following typical estimates for pioneer and early demand of innovation (Rogers, 2010) as well as existing targets in other regions and recommendations from start-ups and SMEs behind the Scale-up Europe manifesto (European Commission, 2018).¹ In practice, the expenditure in PPI of the countries is heterogeneous and much lower than these goals (European Commission, 2021a). We argue that target levels of PPI should rather vary according to the socioeconomic characteristics of each country, given the diversity of situations.

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¹ <http://scaleupeuropemanifesto.eu>.